2-12-2000

The Snail Darter, The Tellico Dam, and Sustainable Democracy — Lessons for the Next President From a Classic Environmental Law Controversy.

Zygmunt J.B. Plater
Boston College Law School

INTRODUCTION BY PROF. DEAN RIVKIN
[UT College of Law]:
I'd like to introduce my longtime friend and colleague Zygmunt Plater who in fact used to teach here at the Tennessee College of Law in the early to mid '70s.He teaches courses in environmental law, property law, and the administrative process. In my environmental law course this year we used his book, Environmental Law and Policy, Nature Law and Society, a unique environmental textbook because it focuses on the issue of citizen enforcement, how citizens can effect environmental quality through advocacy in the legislative, administrative and judicial branches. Zyg has done a number of interesting things in environmental law over the years although I'm not sure if any others beyond the Tellico Dam endangered species case will come up in the course of his conversation today. He worked as coordinator of legal research for the state of Alaska's oilspill commission after the Exxon-Valdez spill. He worked with plaintiffs during the famous litigation concerning the Anderson v. W.R. Grace toxics case in Woburn Massachusetts, featured in the book and movie A Civil Action. Zyg has also worked on a number of other interesting environmental topics, but the best thing to do would be to let him give his presentation.

ZBP:

I'm delighted to be back here in Tennessee, and it's wonderful to be introduced by such a prize as you have in Professor Dean Rivkin.

You asked for a talk that would set out a perspective from the world of environmental law, giving useful advice to the next president. In a way, this is difficult because environmental law is not just one field. It's a cacophony of fields, a vast biodiversity within the legal system. Its subject matter ranges from seal puppies on northern ice floes to nuclear reactors to industrial pollution in the Rust Belt, to dams flooding out indigenous residents in the subcontinent of India, oil drilling in the Ecuadorian jungles, sprawl and highway construction, rats and lead paint in urban tenements. Environmental law subsumes all that and fifty more issues. In terms of legal process, moreover, there is no better subject matter one could choose than environment to find resonating issues of doctrine and structure throughout the entire legal system — going from common law's law of neighbors, to questions of litigation under state and local and federal statutes, constitutional law, international law, comparative law issues, and natural law on top of it.. It's all there. And there is another broad range in terms of conceptual themes —from the power of science and technology, risk and uncertainty, the always useful and perplexing perspective of economics, the vague current international ideal of sustainable development, deep spiritual and ethical issues, systems psychology, chaos theory, intergenerational logic, and, ultimately, fundamental issues of democracy.

That's all that we have to cover. Oh, that and some advice for the next president.

1. A [long] first step — setting out the Tellico Dam story as an example of an average interesting environmental law case, and exploring it,
2. Second, trying to draw a fundamental proposition and some systemic lessons from this case study, analyzing how human beings act, individually and through government processes, in ways that shape the society and our environment, and resist societal controls,
3. And, finally, briefly noting the importance of one particular legal instrumentality (that Dean has already mentioned but I'm hoping you will forget so I can bring it in at the end, and then sit down).

I thought about using the case of the Exxon-Valdez Oil Spill, or a classic industrial pollution case like the General Electric PCB river pollution case, or the Woburn Toxic litigation that my students worked hard on, or today's most disturbing major chemical risk issue, chronicled by Theo Colborn and Dianne Dumanoski in Our Stolen Future – the widespread exposure we and our children face from hundreds of compounds now dwelling in air, water, and foodchains that can mimic hormones, and thus dramatically throw off human endocrine and reproductive systems and the development cycles of our children. But of course from the beginning you know what I really wanted to speak about here in Tennessee.

The example we will explore is the story of the TVA and its Tellico Dam, which lies about 20 miles downstream from where we sit tonight. For some of you it's ancient history from the 1970s. For others, you may never have heard of the Snail Darter. It's a case from the 1970s — the little endangered fish that for a while stopped a dam. The vast majority of this fish's population was eliminated by this project, and for a time we thought it would become extinct if its last remaining major population in the Little Tennessee River was dammed. Today the little fish luckily lives on, in some places tenuously, in several populations elsewhere in the Tennessee River watershed, and it also lives on in the angry portion of Rush Limbaugh's brain (maybe that's his entire brain). But tragically for the fish and the river, the facts of the case were never broadly known and understood, either nationally or, especially, here in the home of TVA.

Founded in the late 1930s, TVA's original missions were to make fertilizer, and power. (If you were launching a new agency and a new career path for yourself and your colleagues, which of those two would you choose to emphasize as a professional life mission?) TVA very rapidly focused on electrical power, and in its first years rapidly became the region's famous dam-building agency. But by 1948 TVA had built three dozen dams, using up virtually all the major river sites that would generate substantial power for the system. The agency then shifted its mode of power production so that by the 1960s, 90% of TVA's power was being generated by nukes and by steam plants. But it's hard for agencies as well as

individuals to give up a sexy self-image. In bureaucracies, moreover, it turns out that once you get going, “a rolling stone gathers momentum.” So the agency kept on building smaller and smaller dams, most of them based on shaky benefit-cost justifications. By 1962 the agency had more than 65 dams, with 2500 linear miles of river turned into a chain of sluggish impoundments. Tennessee had more shoreline than all the Great Lakes combined.

TVA wanted to keep alive the self-image and public sense of its bright Progressive mission, instead of becoming just a corpulent old utility company.And what better cameo than the classic mental image of a dam? — Bold men placing big chunks of concrete, to block and conquer the forces of nature, backing up a river into swollen captivity under human control, and releasing it according to engineering whim in frothy spillways, their spray throwing rainbows to the sky. (Actually, Tellico would be a wimp among dams, but that misses the point.)

As TVA ran out of places to build dams in the 1960s, there was a crisis of morale within the agency. It turns out that there were only two imaginable sites left; the last remaining 33 river miles of the Little Tennessee River, which the agency named its “Tellico Dam” project site, and a site at Columbia on the Duck River (which ultimately was abandoned in the wake of the Tellico battle). To boost agency morale, Chairman Wagner eagerly grabbed onto the idea of building the Tellico Dam to start a glorious new era of TVA projects, to be built around dams even where dams were unjustifiably marginal. (The story is told in a great book, TVA and the Tellico Dam: a Bureaucratic

Crisis in Post-Industrial America, written from internal TVA documents by Bruce Willard and Mike McDonald, and in a fascinating case study by Mike Fitzgerald, also here at UT and here tonight, The Consequences of Administrative Decision, about the process by which over the years TVA tried to defend this project.) By the mid1960s Chairman Wagner had engineered an intensive internal mobilization of all TVA's resources targeted upon getting the Tellico Dam built even if it could not be justified under normal public works project criteria.

As we will see, TVA was hoping to find a new way of justifying its existence that would be defined by the Tellico Dam. TVA was going to have a new mission, building regional "economic demonstration projects." And normally, once such an agency had decided to dam a river, that would have been the end of it. The last thirty-three miles of the river valley (which as we will see was an ecological, cultural, recreational, agricultural, and historical treasure, with waters that had been flowing for 200 million years) would have disappeared under a shallow, sluggish reservoir for the rest of time, without a fight.

The Snail Darter, The Tellico Dam, & & Sustainable Democracy –

Lessons from a classic environmental controversy

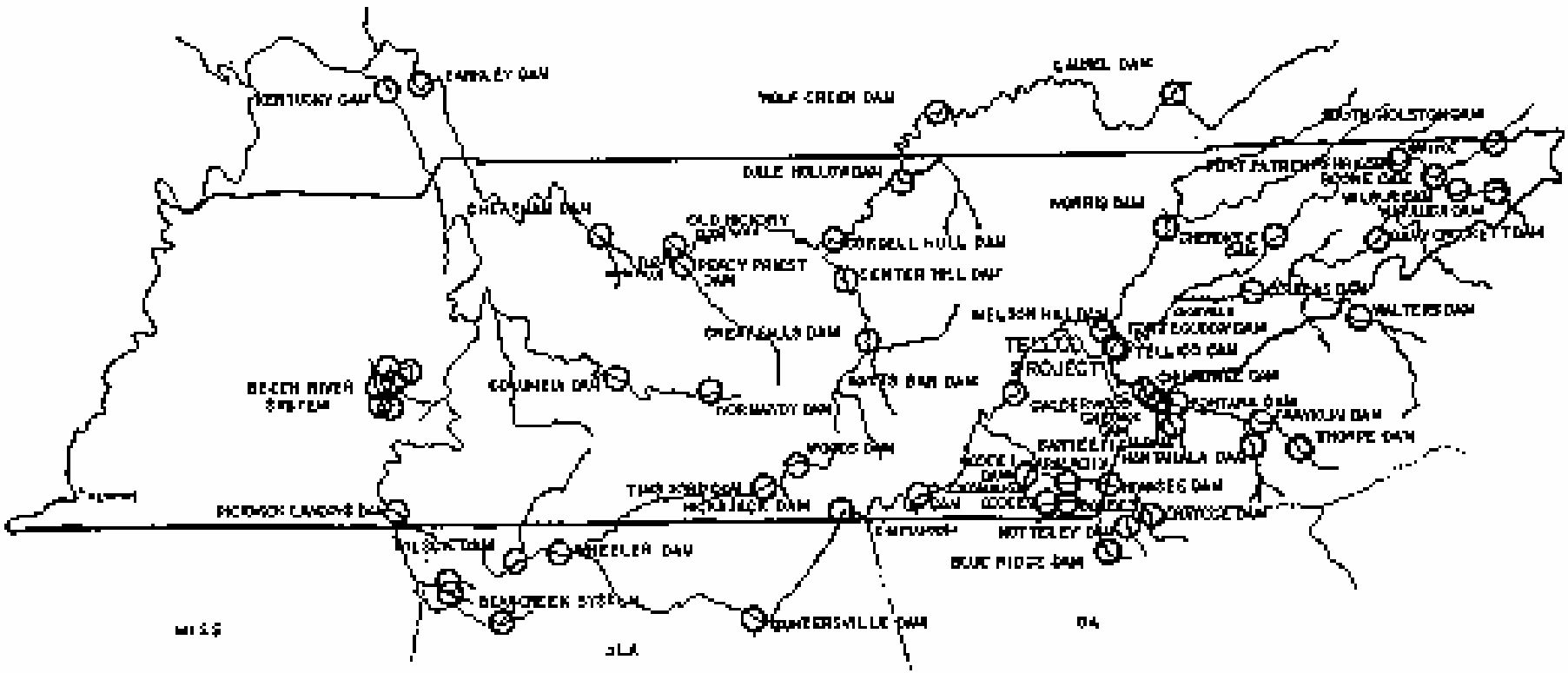
university of tennessee interdisciplinary seminar series, 2000
zygmunt plater, boston college

Here in Powerpoint are some images of the story as it develops....

This is the river valley as it was in 1973, looking down from below Chilhowee Dam. Do you note that this is not a steep mountain valley? The valley of the “Little T” opened broad and flat out from the mountains, so that at best, even if you built retaining dikes at various places in the valley, only the fields nearest the river could ever be impounded, which is why no dam had been built there before.

This is an eagle's eye view of Tennessee and TVA's dams on the Tennessee River System, and if you look at the image, every one of those circles is a dam. Again, twenty-five hundred linear miles of river had already been dammed; this was the sixty-ninth. I'm willing to say that the first three dozen, first four dozen, even, had some public economic justification. But you can see, as things roll on you're damming everything in sight, so that the river becomes a chain of reservoirs filled with slow moving water, mud and carp all the way from the headwaters down to the Mississippi. Tennessee has more shore line than all of the Great Lakes put together. And the fact was that this part right here was the last thirty-three river miles of flowing high quality river that was left.

TENNESSEE RIVER SYSTEM


KENTUCKY DAM
PARADISE DAM
WOLF CREEK DAM
LAUREL DAM
SOUTH HOLSTON DAM
DALE HOLLOW DAM
FORT PATRICK HENRY DAM
BONE DALE
WATAUGA DAM
WILBUR DAM
ELIZABETHTON
CHEATHAM DAM
OLD HICKORY DAM
CORDELL HULL DAM
NORRIS DAM
WATTS BAR DAM
CHEROKEE DAM
BOONE DAM
DOUGLAS DAM
PERCY PRIEST DAM
CENTER HILL DAM
GREENEVILLE
FORT LOUDOUN DAM
WALTERS DAM
MELTON HILL DAM
GREENVILLE DAM
TELLICO DAM
TELLICO PROJECT
BEECH RIVER SYSTEM
COLUMBIA DAM
NORMANDY DAM
WATTS BAR DAM
CLINCH
CHICKAMAUGA DAM
APALACHIA DAM
BLUE RIDGE DAM
OCOEE
OCOEE DAM
HIWASSEE DAM
APALACHIA
OCOEE
HIWASSEE
OCOEE
OCOEE
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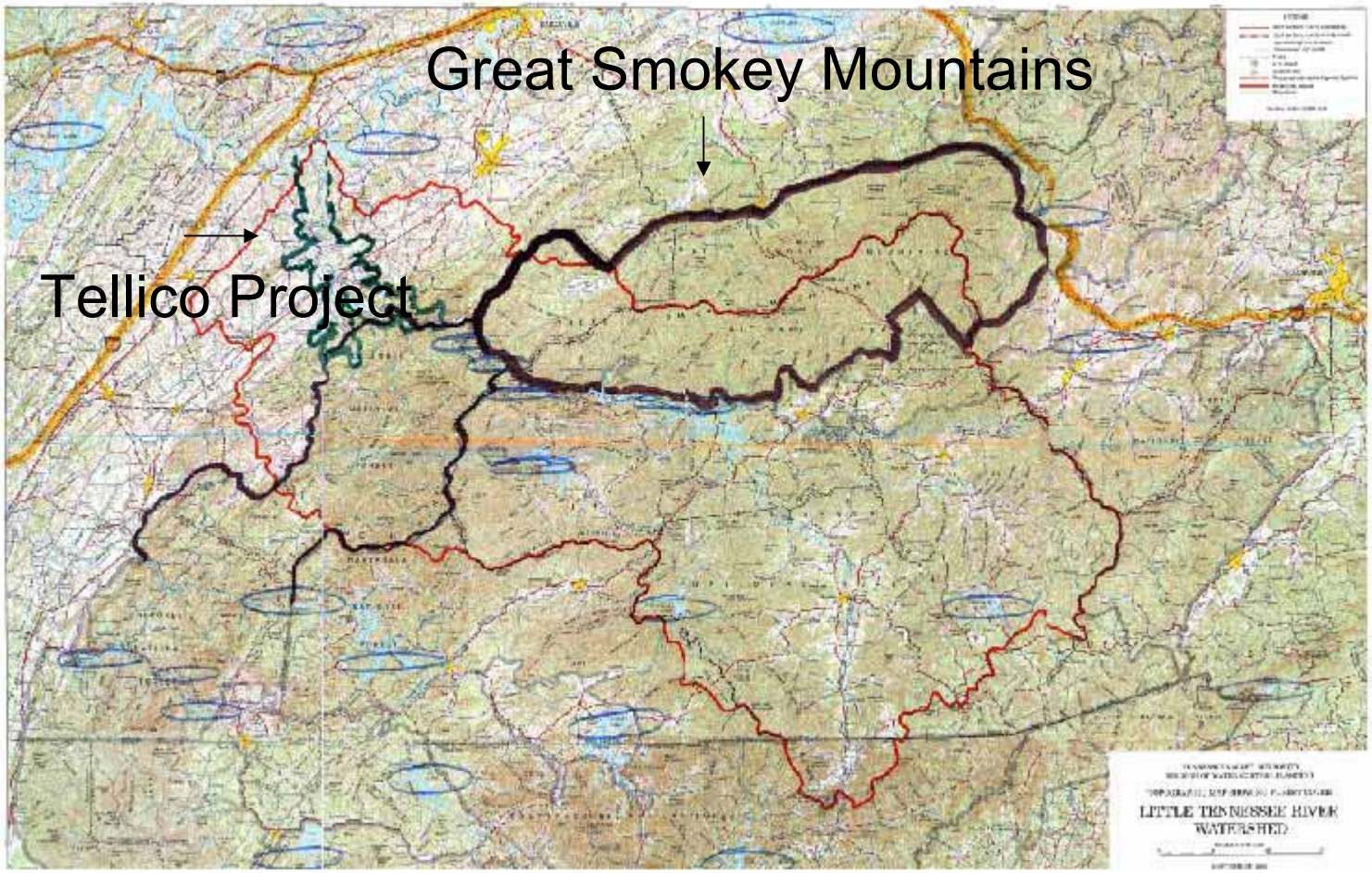
Here is the Little Tennessee River watershed. There's Knoxville up there on the Big Tennessee River, top center, and here across the mountains on the upper Little T is Fontana Dam, and here's Cheoah Dam, and here's Calderwood Dam and here's Chilhowee Dam at the gateway leading out of the mountains. And then here is the river coming out of the mountains, and you see from the topography how much flatter it is, going thirty-three miles down to the Big Tennessee. It was spectacular water, as many of you knew, and strategically located. Here beside the project area is the Great Smokies National Park, here is Interstate-40, the major East-West highway, and here is I-75, the major North-South artery — tourists streaming by every day, as you can imagine, with 10 million a year going into the Smokies. That potential for tourist development is part of the story. If you wanted to make the most of this natural treasure, what would you do with it? That of course was the question.


Great Smokey Mountains
Tellico Project
LITTLE TENNESSEE RIVER
WATERSHED

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W E
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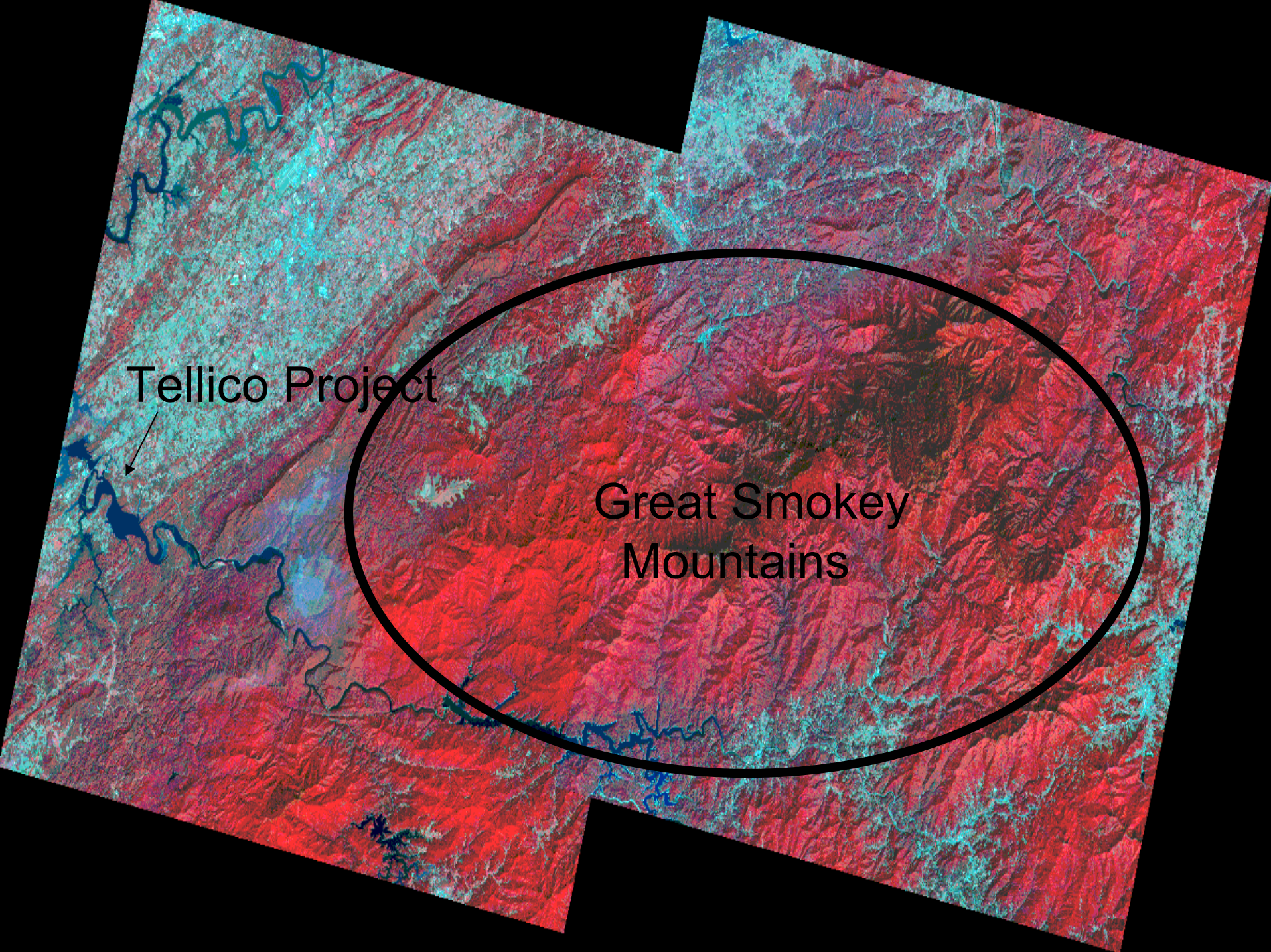
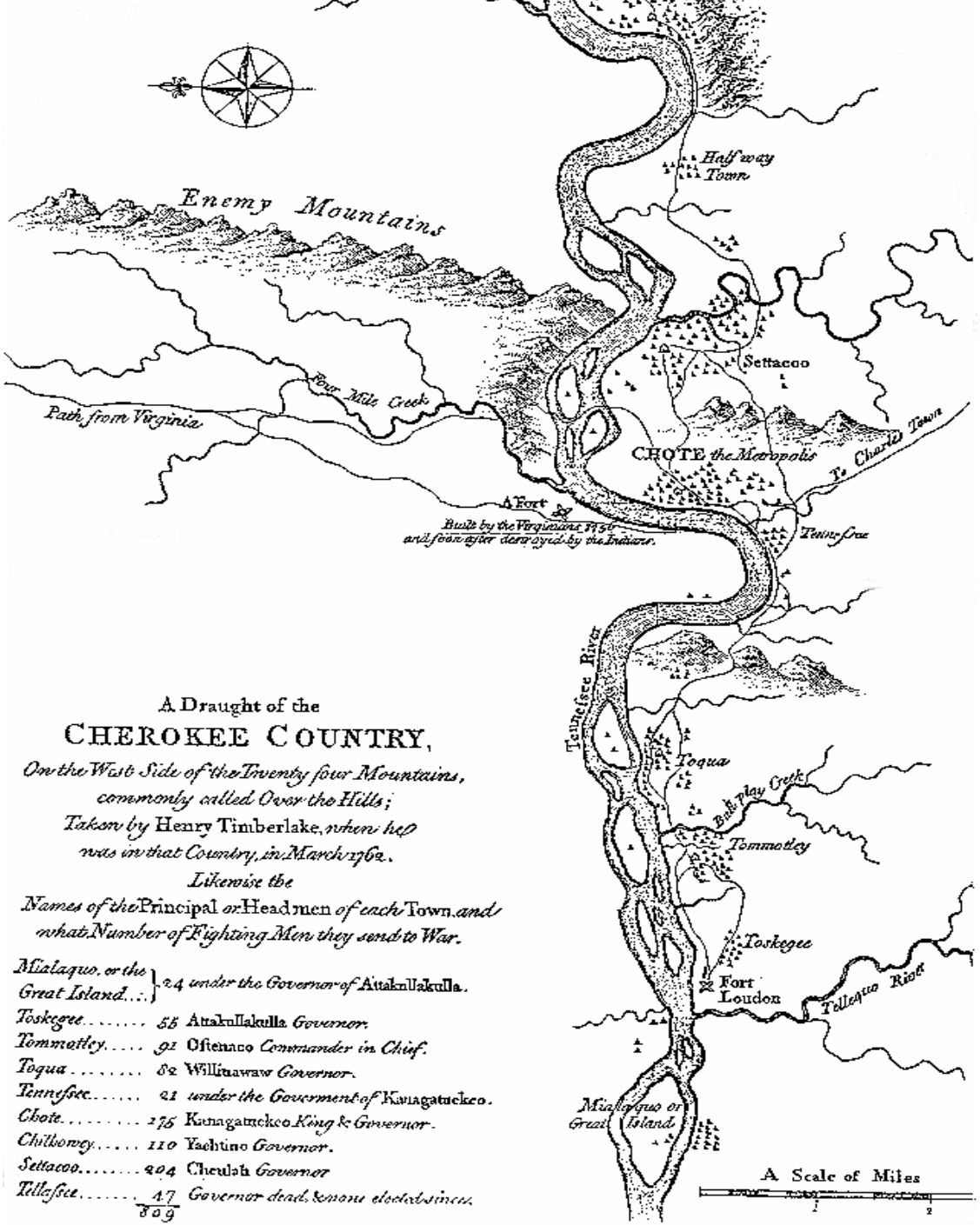
Here’s a LandSat image (with colors coded by attribute, not natural colors). This is the Smokies, with the Little Tennessee River coming out of the Smokies.


Tellico Project
Great Smokey
Mountains

Here is a hill overlooking the river a few miles after the Little T exits the mountains, where there's a cave that the Cherokees said was home to two giant birds that would come flying out to seize unfortunate humans. The site of the Cherokee city of Echota lies off to the right, the Jerusalem of the Cherokees. You can see the farmland; it was incredibly rich. (I grew up plowing stones in Pennsylvania; this was the richest soil I've ever had the pleasure to walk upon.) After a rain in fresh-plowed fields you could usually find arrowheads, because the shorelands had been lived and hunted on for ten thousand years. (The reservoir's waters, by the way, would lie only a few feet deep on these fields. The valley was so flat that waters would never back up against hillsides, as you normally would envision a dammed valley.)

This, below Echota. An incredibly rich beautiful valley, it had been the home of humans for ten thousand years. The river was a treasure for fishing, with rich and highly-alkaline cool water feeding into it from the mountains. It grew trout faster than a hatchery.

This is the 1762 map of the Valley made by Maj. Henry Timberlake of the English Army. In 1762 Major Timberlake came over the mountains and negotiated with the Cherokee Indians. Still in 1973 his map was an accurate depiction of the flowing river below the “Enemy Mountains.” The Enemy Mountains here on the old map are the Smokies, now the Great Smokey Mountain National Park. By the 1950s the upper Cherokee town sites had been drowned out by the Chilhowee Dam, but from Citico here on down the river all the downstream Cherokee sites still existed in 1974 — Echota, Tenasee (which gave its name to the river and then to the state, and also to the small fish’s name in Latin), Toqua with several large burial mounds, Fort Loudon, and Tuskegee Town where Chief Sequoyah was born, really an incredible place. The village sites were right on the banks of the river with fields right behind them. At this point, in from the Southeast flowed the little Tellico River, which TVA took to apply to the entire remaining stretch of the Little T that would be flooded by their dam. And then came Mialaquo and Rose Island, where archeologists found the absolute oldest site of continuous human habitation in the entire United States (except for Russell Cave National Monument, a site about as old as those in this valley, 10,000 years, though it had been used primarily as a shelter not as a settled community). Further down the river here was Coytee Spring, the site of the first Anglo-Indian treaty west of the Appalachians and, as it turned out, the river home of a little endangered Cherokee fish.



A Draught of the

CHEROKEE COUNTRY,

On the West Side of the Inventy four Mountains, commonly called Over the Hills; Taken by Henry Timberlake, *when he was in that Country, in March 1762. Likewise the Names of the* Principal or Headmen *of each* Town, *and what Number of Fighting Men they send to War.*

Mialaquo, or the Great Island	24	*under the Governor of* Attakullakulla.
Toskegee	55	Attakullakulla *Governor.*
Tommotley	91	Oftenaco *Commander in Chief.*
Toqua	82	Williuawaw *Governor.*
Tennessee	21	*under the Government of* Kanagatuckco.
Chote	175	Kanagatuckco *King & Governor.*
Chilhowey	110	Yachtino *Governor.*
Settacoo	204	Cheulah *Governor*
Telleffee	17	*Governor dead, & none elected since.*
	809	

Here again a view of Echota across the river, today the fields are covered with about six feet of water.

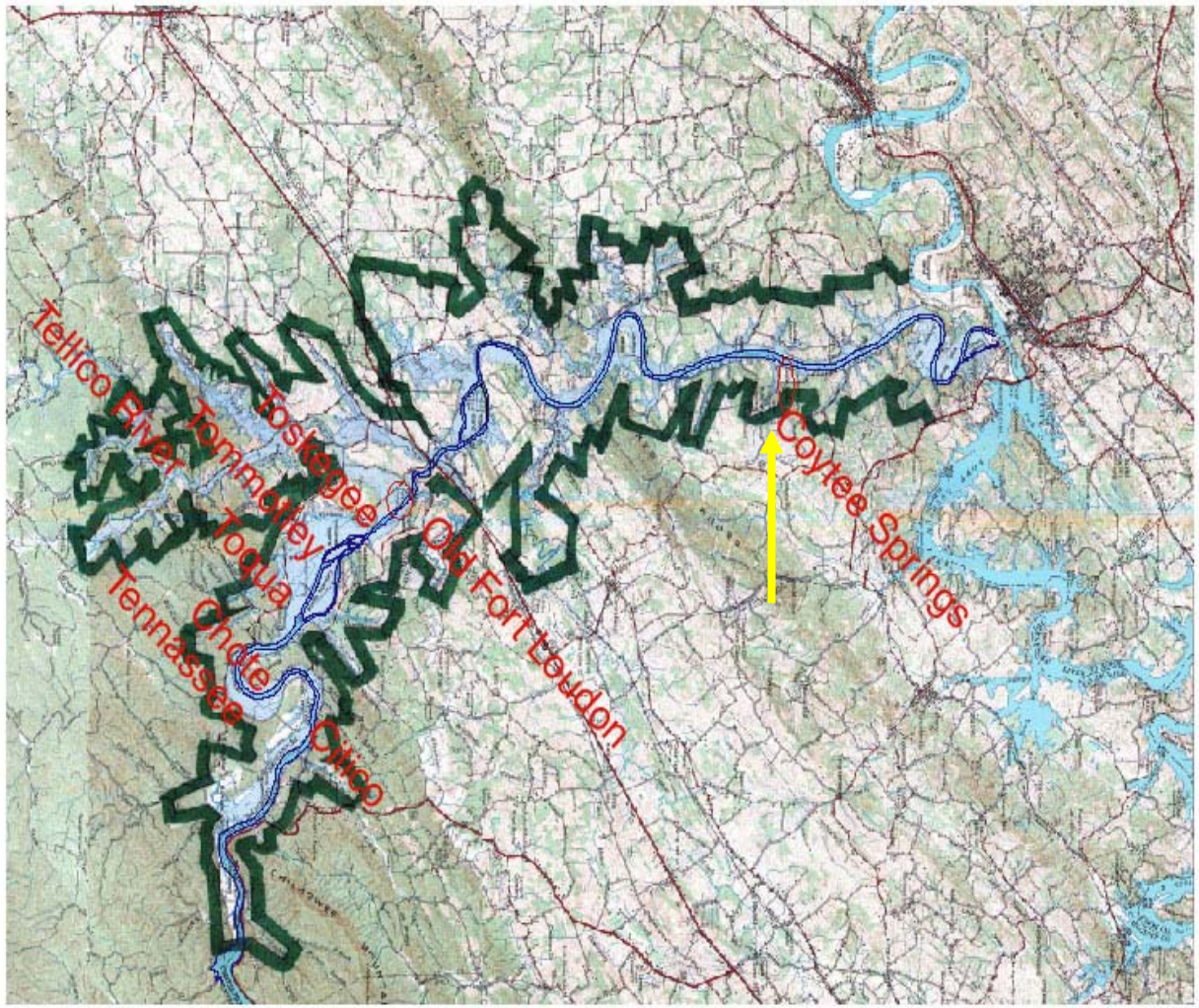
A float-fishing shot. (I should instead get a photo of 20 guys standing in the riffle currents across a stretch of the river, showing how shallow and heavily-used it was by wading fishermen.)

Here is the dam structure as it was in 1973. Built in 1968 at the cost of $4 million, for 10 years this structure stood unfinished against the West side of the valley on one small sidechannel of the river. All the river water was still flowing, because to the left of this photo a half mile of open fields extended across the valley profile on Bussell's Island, and then the river's main channel, all unwalled by the earthen dikes that would ultimately have to be built to hold in a reservoir.

Note how little the dam is, after more than 30 miles of river flow. Western dams are typically on steeply dropping rivers, which can reach 70 feet depths in just the first half mile, impounding deep power-generation reservoirs. The Little T's flow dropped only 26 inches a mile! That pretty much negated its value as a power dam site. To make it clear that this was just a pipsqueak among dams, I once threw a pebble up over it, so that subsequently I could carry it to congressional hearings and say: "Look at this pebble, and then look at me: I don't have much of an arm, but from the base of the dam I easily threw this pebble up and over that little pile of cement." As Hank Hill said when we started the lawsuit, "Sure, the dam structure is already built, but it's only a small concrete wall standing down there by Bussell's Island at the bottom of the valley. Beyond it you've got more than a hundred million dollars worth of land and flowing river. You can just write off that cement, or if you want to use it somehow, we can turn it into a float-in outdoor movie screen...."

Now looking at an Overview, here are the Indian and Colonial sites. . Here again is Echota, there is Tuskegee.... Here is Coytee Springs, reportedly the site of the first treaty between the British and the Indians West of the Appalachians. This is Ft. Loudon, that still existed in the 1970s, the southernmost fort in the chain that extended from Fort Pitt in Pennsylvania down to here, a shield against the French, and the site of an old Virginian fort on the opposite bank

Pre-
Dam


Tellico River
Tommotley
Toskegee
Toqua
Old Fort Loudon
Tennessee
Chota
Citico
Coytee Springs

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Here is a depiction of TVA's plan for the valley.
Marshaled by TVA's Chairman Red Wagner, the agency's planners laid out their design for the Little Tennessee Valley: Here again are the locations of the elements of the official TVA plan for development. "We're going to have Timberlake City — Industrial here, where the bridge crosses the river, then Residential, Residential, Residential, 40 thousand people, 25 thousand jobs. If you really care about the environment and people, you will let go of this river and let us flood the valley to create this important development project." And of course that is a powerful argument in East Tennessee, where jobs and economic opportunity have been so scarce.
To understand how TVA tried to justify the project, it is essential to understand that a huge amount of land beyond the river and the proposed lake was included within TVA's project take-line, the 60 square miles of land that TVA actually condemned or bought. And on that dry land TVA claimed a host of benefits that Chairman Wagner hoped would allow TVA to begin a new era building "Regional Economic Development Demonstration Projects."
Though it is hard to see on this slide which is out of scale, TVA condemned more than twice as much land to sell than to impound with a reservoir — more than 38,000 acres taken from more than 300 farmers, with only 12,000 acres to be flooded. If you look at actual impoundment area —actually, there's too much shown as water here — you'd see that only 28-29% was going to be covered by the reservoir.

By taking all the excess land beyond the reservoir, however, TVA was able to claim that a hypothetically projected "Timberlake City" would be built there, a model industrial city inspired by Athelstan Spilhaus' plans for a similarly imaginary city that never was built in Minnesota. And TVA said that of course such a city would need a dam, to be built here at the base of the river near the confluence with the Big Tennessee River.

TVA did estimates showing that if it bought the land cheap — and under the agency's special juryless condemnation procedures the farmlands could be had for an average of less than $400 an acre — it could be estimated to be re-sold at a large profit to the Boeing Company, which said it would build Timberlake City if it got $650 million in free infrastructure grants from Congress, and TVA stated that this urban development would then generate a host of associated economic benefits. (I am not making this up.)

It turns out that this hypothetical imaginary city, along, primarily, with alleged recreation benefits, provided enough basis for TVA to be able to claim a positive official benefit-cost ratio of 1.3 to 1.

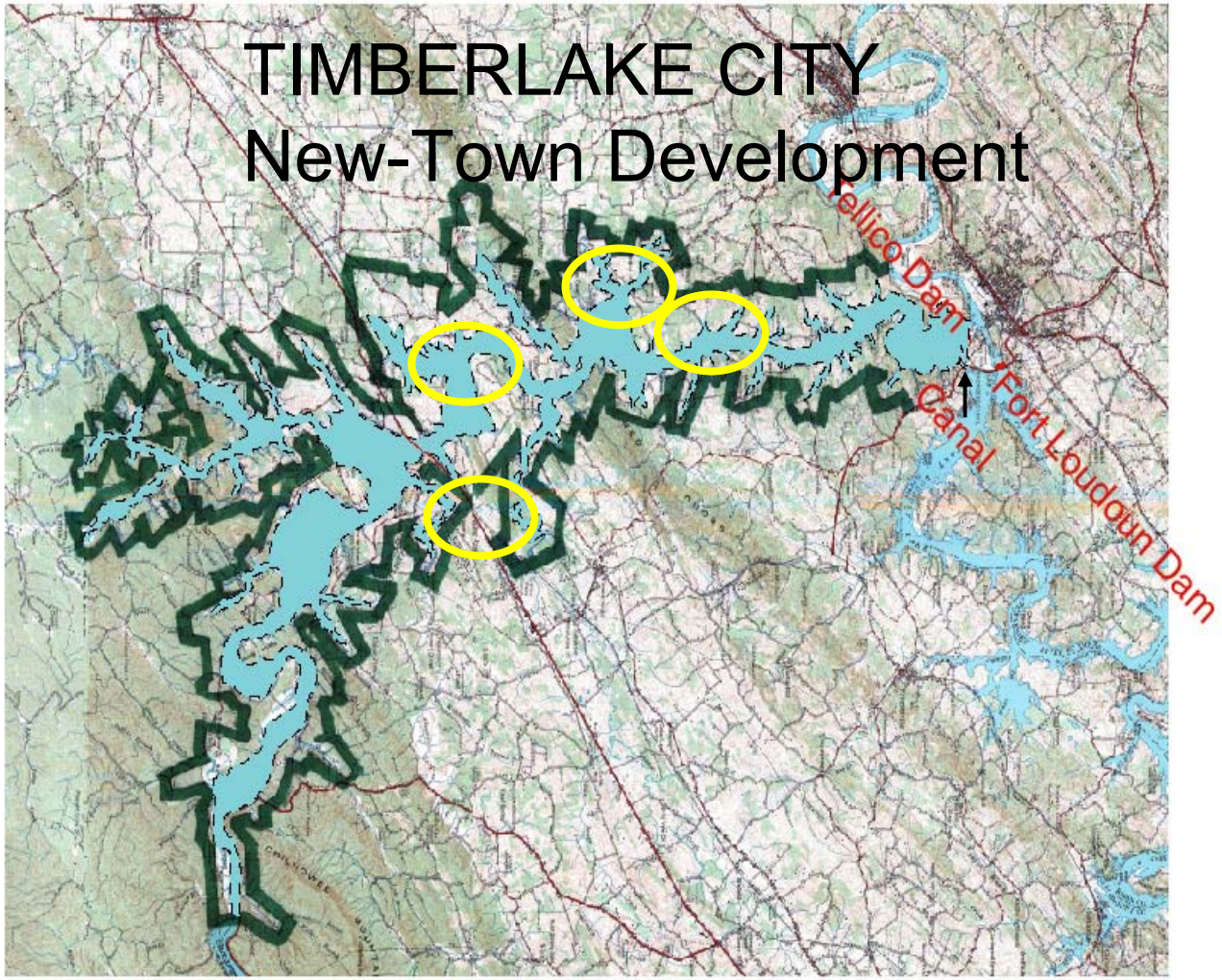
(Every federal agency, when spending tax payer dollars, has to have a theoretically profitable benefit-cost ratio — for every taxpayer dollar spent, the proposed project has to be able to claim to earn at least $1.01 over 100 years. Beyond hyperbolic benefit projections, agency planners were helped in projecting their positive ratios by the fact that they could treat the cost of taxpayer dollars as interest-free, or nearly so.)

TVA

Plan

for

Reservoir



Here is the Tellico Project's officially-claimed cost-benefit ratio as it stood in 1972 (benefits later were reduced from 1.7: 1 to 1.3: 1.).
(Total estimated project cost was approximately $150 million.)
Here are the claimed project benefits, in terms of alleged annual economic returns:
Flood control, $505,000 per year. As one small shallow reservoir in a chain of 24 above Chattanooga, Tellico had little to contribute to flood control (though every time there was flooding in Chattanooga the TVA press department would lament that if Tellico had been complete, the flooding would have been avoided).
Navigation, $400,000. A canal was planned to bring boats from the nearby reservoir on the Big Tennessee into the Tellico impoundment. This claim of navigation benefits was based on agency estimates that the Timberlake industrial development would use barge freight service, although the process of taking single barges up a twisting series of lakes and into the Appalachians (the locks downstream could not handle multiple barge chains) never was economically feasible.
Power, $400,000. Water flowing through the canal could produce 24 megawatts when it exited into the reservoir on the Big Tennessee and later went through that reservoir's generators. Putting this in perspective, a TVA internal study, never released, showed these "power" benefits from the shallow Tellico reservoir

were relatively trivial. Less than one tenth of one percent of TVA's capacity, you could produce half again as much net power [35MW] *just by burning the annual biomass* produced on the project area's fertile fields!

Recreation, $1,440,000. Look at this;: if these huge recreation net benefit projections of $1.4 million a year had not been claimed, the project's "economic development" justification would have evaporated. How was it done? Note that this internal agency calculus claimed these net recreational benefits while eliminating the last flowing river available for high-quality recreation in the region. There are 25 other dams and reservoirs within 50 miles of the Little T. But this was the last, best place, where you students growing up in the region could have come for day-long float trips with your boy or girl scout troops — passing by Indian mounds as you floated along, fishing as you drifted, enjoying the best big trout fishing east of the Mississippi, stopping at an island along the way for a picnic lunch — really an extraordinary place for flowing water recreation. And trout fishing has been shown to generate much higher economic returns than warmwater fisheries. Red Wagner had to threaten several TVA economists with firing or transfer to Muscle Shoals before he got his agency economists to come up with that $1.4 million in net recreation benefits. (One of them who helped us refused to go along with TVA's Tellico benefit estimates and left the agency, finding a long and happy career teaching here at UT.)

Fish and wildlife enhancement benefits, $220,000. No one has ever quite been able to explain how, by eliminating the last remaining stretch of big high-quality coldwater river fishery and turning it into a seasonally-fluctuating eutrophic warm water impoundment, and eliminating a dozen square miles of fertile shoreland scrub habitat, TVA could claim net fish and wildlife benefits.

Water supplies — $70,000. One thing Tennessee never needs more of is water.

Shoreland development, $714,000. This, along with the recreation claims, was the big one. Sale and development profits of the land condemned from the Tellico-area farmers was the core of the claimed project justifications. Condemning the farmers' lands at an average of ca. $330 per acre (how would you like to buy an acre of land on the edge of a fantastic trout stream, 6 miles from the national park, with this top-grade agricultural soil for $330?) and then theoretically re-selling it to the Boeing Corporation for $5000 an acre. (Just who are the communists in this story?)

(Re-development — $15000. We were never sure what this little item meant.)

So, in sum, as to the normal categories of claimed benefits for dams like power and flood control? Even Chairman Red Wagner once said publicly that these claimed benefits were "relatively insignificant, given the costs of the project." So the unusual, unlikely, unprovable, claimed "economic development benefits" of re-sold shoreland and net recreation enhancement created the official justifications for the Tellico Dam.

This was the official ratio, these were the powerful expert agency's numbers. No one in Tennessee could practically question their legitimacy, and no one in Washington would. When TVA speaks, the New Deal God speaks.

There was, however, a redoubtable little group of people who began arguing against TVA's claims for Tellico dam from the moment in the early 1960s when TVA let its cat out of the bag. There were 340 farm families who lived in the valley, and from the beginning some tried to fight the TVA land condemnations. Some were still holding on in the mid 1970s. (Asa McCall would sit on his front porch with a shotgun and a German Shepherd that didn't like TVA, and every time they went to throw him off his land we would have journalists there, and it didn't happen.) There was a collection of people from many different places in the region who tried to help the farmers save the valley. Lee Russell is here tonight; she and her husband Bill brought in Tennessee Citizens for Wilderness Planning to help the resisting farmers, led by Burrell Mosier, the Davises, the Ritchies and others in the valley. Fishing clubs, flower clubs, agricultural cooperatives, even a brief support letter from the National Chamber of Commerce which was bemused by the federal condemnation-and-resale plan.

The citizens first brought a National Environmental Policy Act lawsuit. TVA had not done an EIS, an Environmental Impact Statement under NEPA. That suit was successful, in spite of TVA's argument that as an agency with emergency powers [to fight the Depression] the agency did not have to obey NEPA, and the citizens won an injunction in 1971 that held for almost two years, until the agency wrote an EIS accurately enough what it planned to do.

And this was the classic environmental analysis the citizens made —
(1) benefits — the project's claimed benefits, the citizens pointed out, are inflated beyond belief,
(2) costs — the project's costs have been deflated beyond belief or ignored, and
(3) alternatives — if TVA really wants to do a regional economic development project, there are viable and desirable river-based development alternatives.

Tellico Project--TVA's Claimed Benefit-Cost Ratio

Direct Annual Benefits:

Flood control	$505,000
Navigation	400,000
Power	400,000
Recreation	1,440,000
Fish & wildlife	220,000
Water supply	70,000
Shoreline development	714,000
Redevelopment	15,000

Total Direct Annual Benefits: $3,760,000

Annual Costs:

Interest and amortization	$2,045,000
Operation & maintenance	205,000

Total Annual Costs:	$2,250,000
Benefit-Cost Ratio:	1.7:1

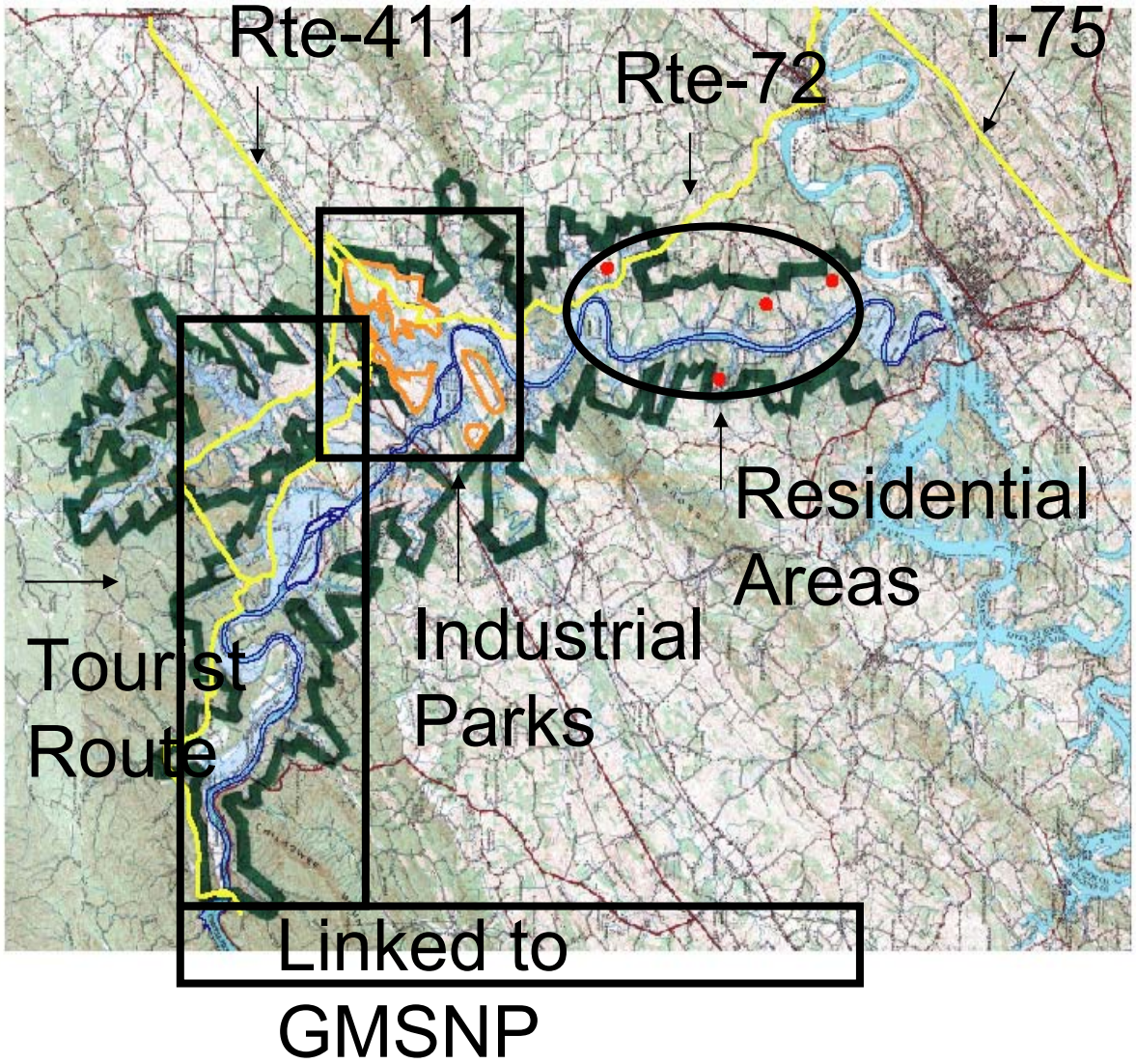
[Source: Tellico EIS I-1-49]

River-based development. This happens to be a 1977 version of the citizens' alternative development concept. What the citizens hypothesized was that, taking lands that had been voluntarily sold and leaving the farms where families wanted to stay on the land, you could design a real-world development plan that preserved all the treasures of the valley and achieved real, rather than fictional Timberlake model city, economic development. Not only could you have an industrial park here, bigger than TVA's plan because you weren't flooding out so many flat shallow lands. You could have residences here where farmer wanted to settle. And there was a goldmine in tourist revenue right in your hand if you did not flood out the valley. Here is Interstate I-75. If you pulled even just 3% of the tourists going North and South, brought them in here onto Tennessee route 72 and up the river, and rebuilt this old bridge at Citico (instead of building the planned reservoir bridge midway, at Route 411) , the tourist flow would have the facilities of the valley, and then a route into the Smokies Park via the Foothills Parkway. Ten million tourists a year go to the Smokies, entering through the turmoil and trash of the unplanned entry highways — Gatlinburg, Townsend, Cherokee North Carolina. If this entry region were designed and developed to coordinate with the Park, as it could because TVA already owned enough land, the citizens' concept was that the valley could continue to be a prime agricultural community, interspersed with tourist facilities for camping, horseback riding, float trips and exploring historical features like the forts, Indian towns, and Paleolithic archaeological sites (as even Ohio has done with its archaeological sites, with so much less to build on).

(The alternative development options never were mentioned by TVA nor covered by the local press. Why, significantly, would the local newspapers not talk about rational, desirable, river based alternatives? That was a curse on our efforts to defend the river, and perhaps an indication of some of the systemic resistance we discovered.)

River Based Alternative

UT Dept. of Architecture 1977



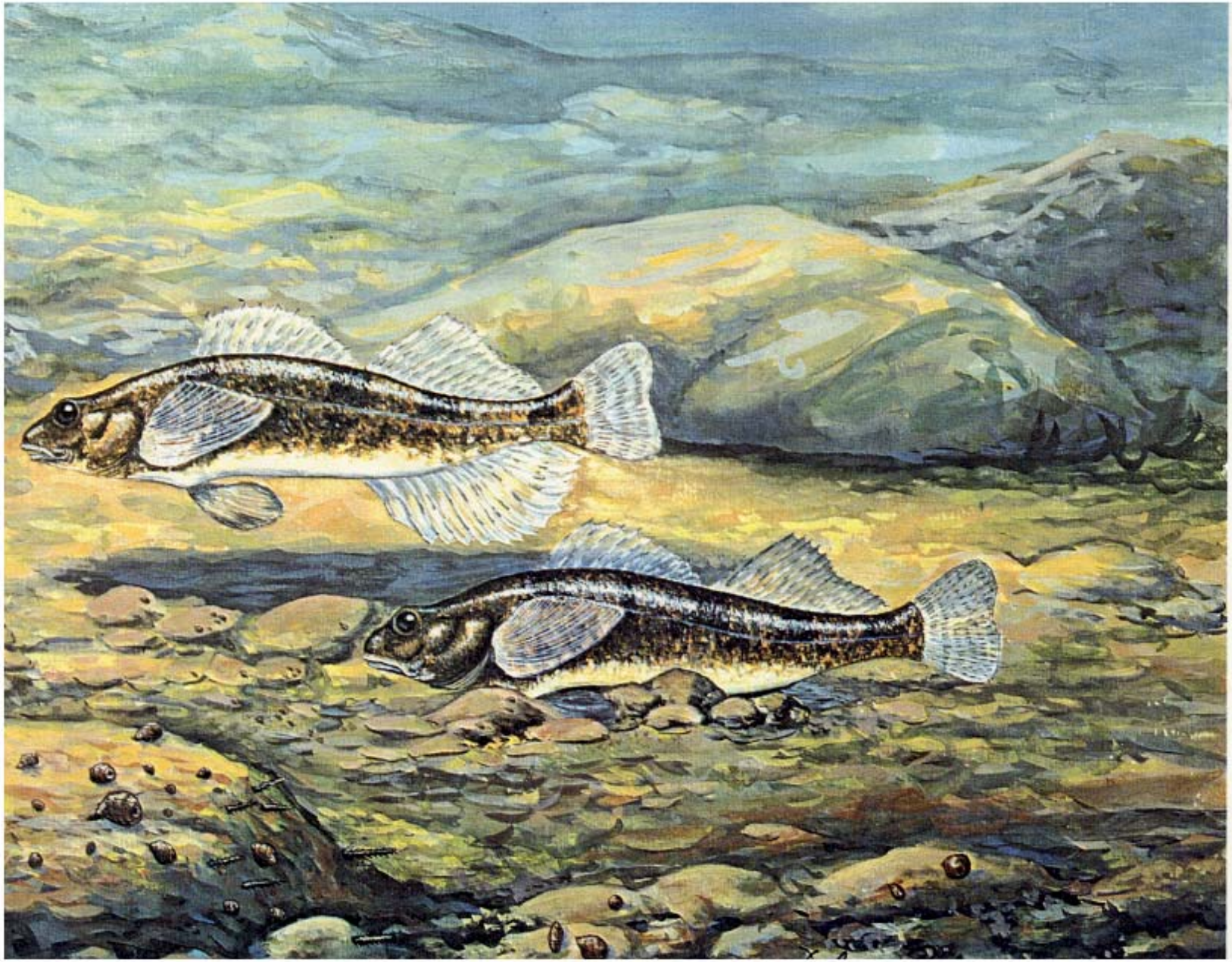
To pull together the alternative development options for the river valley, consider this road which we said could be named the "Cherokee Trail" coming up from the Interstate through the valley and across a restored Citico bridge and then onto the Foothills Parkway, across the Rich Mountain Trail and into the Park. If you want money, if you want economic development, if you want a spectacular treasure maintained, do you take all of this and put the riverside resources that will attract tourists underwater? You've got a treasure — you can turn it into residential areas, industrial parks, tourist group and link it into the Great Smoky Mountains National Park, or you can have one more fluctuating marginal reservoir that by far does not match those potentials. Would it have made a difference to the local community if they'd been told by TVA and the press that such development potentials existed right at hand, instead of the story they actually got that a bunch of pinheads defending the environment were trying to make this region poverty-stricken?

TVA never admitted the reality of these alternatives, and ignored them in its EIS. Red Wagner threatened the TVA economist who tried to develop that Citico bridge idea with firing because it undercut the dam plan, and the valley development option never made it out of TVA. The injunction under NEPA ultimately was removed, because all the NEPA statute requires is that you adequately catalog all of the bad things that you're going to do. Once they got the judge to accept an EIS, in 1973, TVA was again ready and able to go forward.

And now enters the Endangered Species Act. The endangered species aspect of this case comes across, depending on your perspective, as a fortuitous, rational ecological phenomenon that ultimately serves to make a case that good ecology is good government, or on the other hand it can be seen as a hypocritical crypto-communist threat, pulled out at the last moment by a bunch of no-good scientists and pinko enviros to stop progress in its tracks.

In the summer of 1973, toward the end of the NEPA injunction, Professor David Etnier (who is here tonight; you want to talk to a real scientist? there he is) was doing a final census of the river's biology, thinking that it was going to die. He was swimming along with goggles on — he sees this little perch darting among the pebbles on the floor of the river — he catches it in his fingers and stands up, holding it out to show his students. (The river was a quarter mile wide, but you could basically wade across it.) And Professor Etnier says, come over here, guys — look here — I've never seen one of these before. And I have reviewed every known percid [member of the perch family] in the world. This is an endangered species." Etnier later that day is talking with a local farmer and says "I think we've got a little fish that may save your farm."

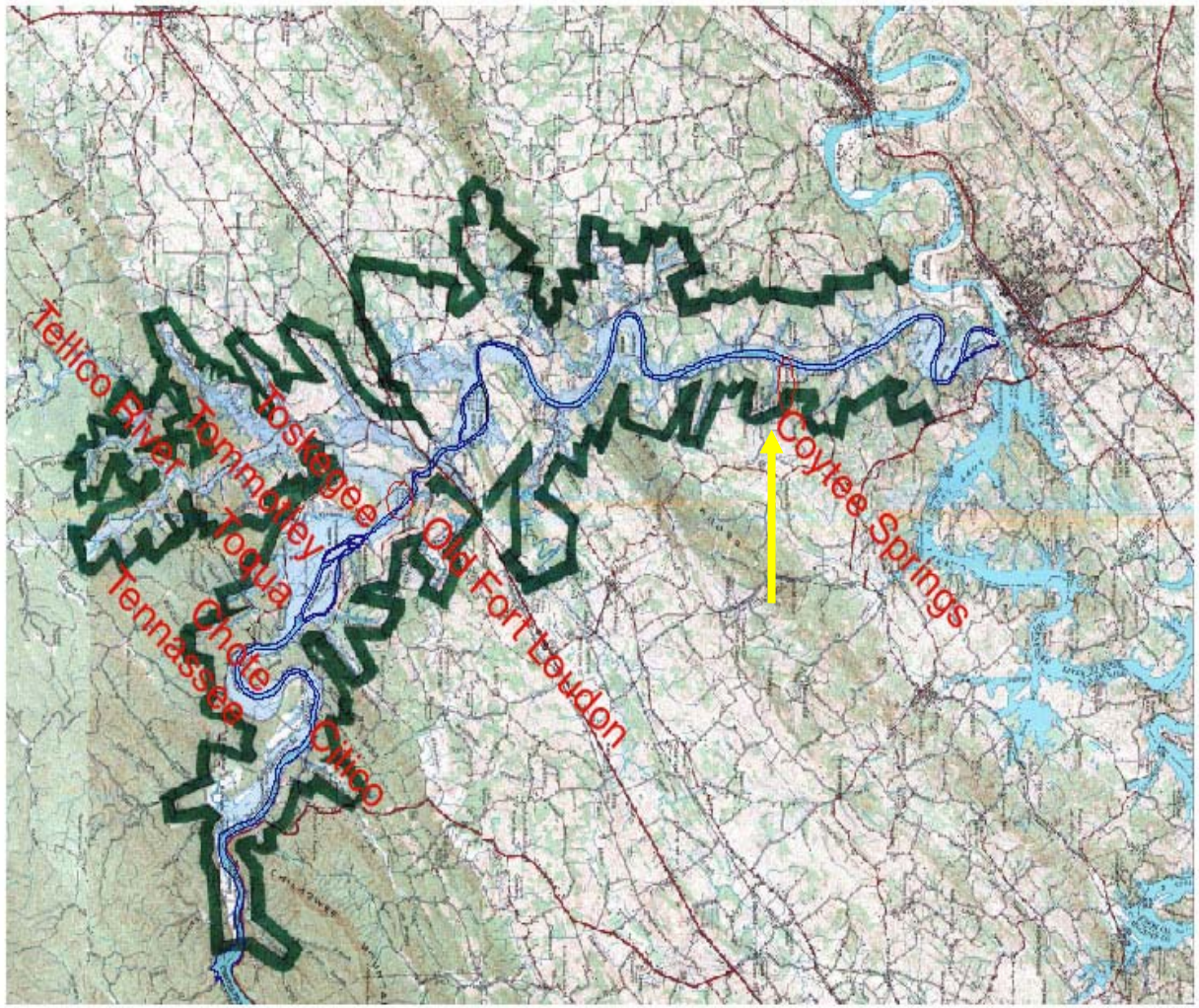
Soon enough the citizens were accused of hypocritically using the little fish to serve their own ends. What do you think?



Here is where David Etnier found that darter. Their major population lived right there on the broad river shoal at Coytee Springs, a beautiful grove of big sycamore trees where water came pouring out of a little hillside and flowed into the river. After hatching on the Coytee Spring shoals, the larval forms of the little fish would drift downstream so they wouldn't be eaten by "mommy and daddy," and when they had grown they would swim back up to the shoals and reproduce there. (Guess where TVA started its bulldozing when the reservoir-clearing operation got underway? Right at Coytee Springs. By the time the farmer called us it was too late to save the spring site, and cascades of mud were going out over the breeding shoal at Coytee Springs.)

By this time a lot of citizen effort had gone into the NEPA fight against the dam, and now with the discovery of another lawsuit possibility, a new effort began and new people joined the fight, some of them here tonight, Don Byerley, Jim Dikes, Julie Hardin, Fran Scheidt, who else do I see, David Scates, a local TVA employee who was a devoted defender of the river, Peter Alliman, Doris Gove, Jeff Mellor, and Hank Hill, a law student who had been hanging out with David Etnier's grad students here at UT. Hank Hill came to me and said "I have to write a 10-page paper for your Environmental Law course, and I'm looking for a topic. Some of my friends in Biology have found an endangered species right in the middle of the Tellico project area. Do you think that's enough for 10 pages?" I said I thought it was.

Pre-
Dam


Tellico River
Tommotley
Toskegee
Toqua
Old Fort Loudon
Tennessee
Chota
Citico
Coytee Springs

W
S
N
E

So we took a look at the Endangered Species statute. Here is Section 7 of the Act, and it raises again the question of whether we were hypocrites in using the ESA against the Tellico Dam. Let us admit from the start that we knew that most people in Congress, when they voted for the ESA, were thinking only about Bald Eagles, Whooping Cranes, and things like that, and had no inkling that it could be used to stop pork barrel projects....

Look at the title of Section 7. Does it say "Prevention of Destructive Federal Projects"? (What if it had said that?) But it says "Interagency Cooperation," and if you're skimming the bill superficially, that looks like nothing. But if you are an attorney, you take your pencil and start underlining operative words. "All federal agencies *shall*...." Tell me about the word "shall." If it were "may," nothing would have happened. Shall what? You go further through the words..."shall, dot, dot, dot, dot, dot, *insure* that actions authorized, funded and carried out..." (is there anything an agency does that *isn't* covered by 'actions that are authorized funded or carried out'?)... "do not jeopardize the continued existence of endangered species or result in the destruction or modification of habitat...." Read this way, the words create two causes of action, the legal formulas used by lawyers that define the legal requirements for getting a judge to give them remedies they seek. This statute, though it didn't say so clearly, thus created two formulas, one based on "jeopardy" to endangered species, and second, "destruction and modification of habitat determined to be critical."...These two causes of action fit the facts of Tellico, and so we filed the lawsuit, funding it with the sale of snail darter tee-shirts. (Tee-shirts and citizen suits go together. See Image Number 40.)

§7 Endangered Species Act of 1973, 16 USC §1536…

§7. Interagency cooperation

The [Interior] Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. **All** other **Federal** departments and **agencies shall** in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter while carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title and by taking such action necessary to **insure that actions** authorized, funded, or carried out by them **do not jeopardize the continued existence of such endangered species** and threatened species **or result in the destruction or modification of habitat** of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical.

This image projects yet another revolutionary legal tool of environmental protection, in addition to the fact that the Endangered Species Act provided a mandatory provision with teeth in it that seemed to tell federal agencies not to kill endangered species. The second innovation was that in America such laws could be enforced by lowly citizens.
The remarkable phenomenon of citizen enforcement was originally vitalized not by environmentalists but by the civil rights movement in the 1960s, and was subsequently brought into most of the environmental statutes. The ESA's provision, Section 11(g), says that *any person* may bring an enforcement action 60 days after written notice of a violation to the secretary, the federal secretary and any alleged violator, beginning a lawsuit seeking an injunction. Moreover the court thereafter may award reasonable attorney and expert witness fees. Martin Luther King and his allies began thus using the 19th century Civil Rights Acts in the 1960s. Ralph Nader put it into consumer product safety and a variety of other public interest statutes. The provision was then picked up and echoed in 18-20 major environmental statutes. Nowhere else in the world was there such a statute — allowing citizens with no money (one of them soon to be denied tenure) to file suit against a major federal agency and force that agency to address in court the intimate details of what it was doing. (This concept of citizen enforcement now has been picked up around the world. It's part of what nations in Europe especially, but others too, have learned from us, and it is revolutionary.)

With the facts of Tellico and the words of ESA Section 7, we had all the elements necessary ultimately for winning the injunction in the Supreme Court case, Hank Hill et al. v. TVA. It didn't take a great lawyer to win it. Basically we knew because of David Etnier's testimony that this fish was in jeopardy, and also that its prime critical habitat was being destroyed. What's the primary cause of species endangerment? The primary cause of endangerment for endangered species is loss or degradation of *habitat*, which is why so many resource exploitation industries and real estate developers are on a collision course with endangered species. It turns out that this little fish probably had lived throughout the upper Tennessee River systems. And one by one by one by one its populations were destroyed by — guess what? — dams. So the proof of Section 7 violations in the Tellico case was easy.

But what about the common sense of it? Wasn't the ESA violation a trivial technicality? During the court case, Justice Powell leaned over the bench and asked, "What are these fish good for, anyway? Can you eat them? Are they good for bait?" And isn't that the question that everybody would want to ask? Why stop a humongous hydroelectric dam for a stupid little minnow? And I smiled gamely and said " well, your Honor, as exhibit 12 at the trial shows(and that was the picture of the snail darter on the shallow shoal at Coytee Springs [IMAGE 17], at which point the court clerk jumped up and started handing out this lithograph to the justices), "this fish is specifically adapted to shallow, cool, clear, highly oxygenated flowing water, and that its last best place for survival is on the shoals of the Little Tennessee River shows that those habitat qualities there are unique and endangered for human uses as well." It was an amateurish attempt to make the utilitarian argument for species protection.

§11 Endangered Species Act of 1973, 16 USC §1540…

(g) Citizen suits

(1) …**any person may commence a civil suit** on his own behalf --

(A) to **enjoin any person**, including the United States and any other governmental instrumentality or agency…who is **alleged to be in violation of any provision of this chapter** ….

(2)(A)

No action may be commenced under subparagraph (1)(A) of this section --

(i) prior to sixty days after written notice of the violation has been given to the Secretary, and to any alleged violator of any such provision or regulation;

(ii) if the Secretary has commenced action to impose a penalty pursuant to subsection (a) of this section; or

(iii) if the United States has commenced and is diligently prosecuting a criminal action in a court of the United States or a State to redress a violation of any such provision or regulation.

(3)(A)…(4)

The court, in issuing any final order in any suit brought pursuant to paragraph (1) of this subsection**, may award costs of litigation (including reasonable attorney and expert witness fees)** to any party, whenever the court determines such award is appropriate.

Ultimately the Court decided for the darter, the river, and the citizens, but in the most parsimonious of terms. The Court wrote:

"We have no expert knowledge on the subject of endangered . Much less do we have a mandate from the people to strike a balance in favor of TVA. Congress has spoken in the plainest of words [sic] making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities...," thereby adopting a policy which the Court described as "institutionalized caution." Extinction is forever. But in addition to the statutory interpretation and equity arguments, we had extensively briefed the common sense of the case — how the endangered species served to protect human values, against an uneconomic project. The Court, however, wrote narrowly, so the press never picked up the practical argument against the dam. The brief carried the metaphor of the little fish acting as "the canary in the coal mine" — the little sensitive small species, watched by humans in the mines because poisonous methane gas cannot be detected by humans, but when the sensitive canary starts fading, it's a critical warning to humans as well. But the lazy press instead seized upon TVA's easy caricature — the most extreme environmental conflict, with environmental treehuggers seizing upon a stupid little fish to block a gigantic power dam. TVA sent out photographs of the dam, shot close-up with a 24 millimeter lens, so it looked humongous, with an inset photo of the little 2 1/2 inch fish leaned up against a ruler. It traded on an obvious cliche, but apparently that juicy cliché was too good to pass up.

TVA v. Hill, United States Supreme Court, 437 U.S. 153 (1978)

> We have no expert knowledge on the subject of endangered species, much less do we have a mandate from the people to strike a balance of equities on the side of the Tellico Dam. Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, hereby adopting a policy which it described as "institutionalized caution."

After the Supreme Court, Tellico was sent into a special economic review process — the God Squad, created as an amendment to the ESA in response to this case by the pork lobby led by Senator Howard Baker, the senior senator from Tennessee. As Baker once said, "We didn't intend this Act to protect cold slimy things, but rather warm fuzzy things like eagles and polar bears." He insisted that a God Squad should be able to order extinctions, based on human economics. (The chairman of the Council of Economic Advisors, Charles Schultz, was substituted for the chairman of the Council on Environmental Quality.) The God Squad meets for the first time in history on January 23rd, 1979. We'd been trying for 10 years to get the rational alternatives for the valley publicly considered. Now, for two hours, the committee's investigators lay out a deep and probing analysis of the dam and its alternatives. Then there was a silence. And then Schultz, the economist, started speaking.... Schultz says "...here is a project that is 95% finished. And if you take just the cost of finishing it against total project benefits, and do it properly, *it still doesn't pay.* Which says something about the original design!"

The whole project was not worth — would not pay back — even 5% of its own cost! People in the hall broke out in laughter, because in Washington people knew this was the unmasking of a well-known fiction. Porkbarrel projects are built on dishonest economics, that's how you do it with public works projects in the appropriations process, and because TVA had pushed for an override to the ESA, the embarrassing truth had finally been revealed in a public forum. (Baker fulminated against the God Squad: "They weren't supposed to do economics. They were supposed to apply common sense and just override the injunction.")

This was the first time we citizens had been able to get the merits of the dam and the valley on the table in an open public forum, and when finally it happened the verdict on the ecological and economic merits was spectacularly against the dam.
But of course the reporters didn't pick it up. The dramatic reversal of the "silly little fish bites dam" caricature, and the vindication of sixteen years of citizen protests, ironically did not make the front pages. It didn't make the 6-o'clock news; in most cases it didn't even make the papers.

The "God Squad" Endangered Species Committee, Jan. 23, 1979

> Here is a project that is 95 percent complete, and if one takes just the cost of finishing it against the [total project] benefits, and does it properly, it doesn't pay,... which says something about the original design.
> Charles Schultze, ESC member, Chairman of the Council of Economic Advisers

After the verdict of the God Squad, TVA was quiet for a time. The citizens tried desperately to prod the Carter Administration's TVA representative — get something moving, consolidate the God Squad verdict by publicly laying out some alternative development plans. But Carter and his rep pulled a Hamlet, and nothing happened.
Then, four months later, in June of 1979, in 42 seconds, the TVA lawyers got Rep. John Duncan of Maryville to sneak a rider into the public works appropriations bill. (Rep. Don Weaver, a friend of ours, was standing right by the podium in the House of Representatives and never realized what they were doing.) "Mr. Chairman, Mr. Chairman, I have an amendment to offer." Duncan offered the amendment but cut off the reading after 10 seconds. Here was the language" —
"Not withstanding any provision of law to the contrary, the following project shall be completed: Tellico Dam."
We tried to get a veto, and Jimmy Carter prepared a veto message and almost vetoed the bill, but ultimately, characteristically, folded on it (with an incongruous Pontius Pilate plea to us to forgive him) and that was almost that.
That wasn't exactly the end, because enviros are such bad losers, they keep on trying. The Cherokee Indians had been working with our coalition right along, so then they filed a constitutional lawsuit against the dam based on violation of Native American religious rights.

(Congress can't amend away constitutional claims.) But the Cherokees' appeal came up one vote short in the 6th circuit, the Supreme Court denied our petition for certiorari, and the river finally died. David Scates tells a sad story, of watching as the water came up... There was a budding rosebush at the edge of the river as the impoundment backed up, and as the sunlight filtered down through the two feet of cold clear water that had drowned it, for the last time its flowers blossomed, staying there for a few days, under water. He told us "I cried, seeing the blossoms open under the water as it came up."

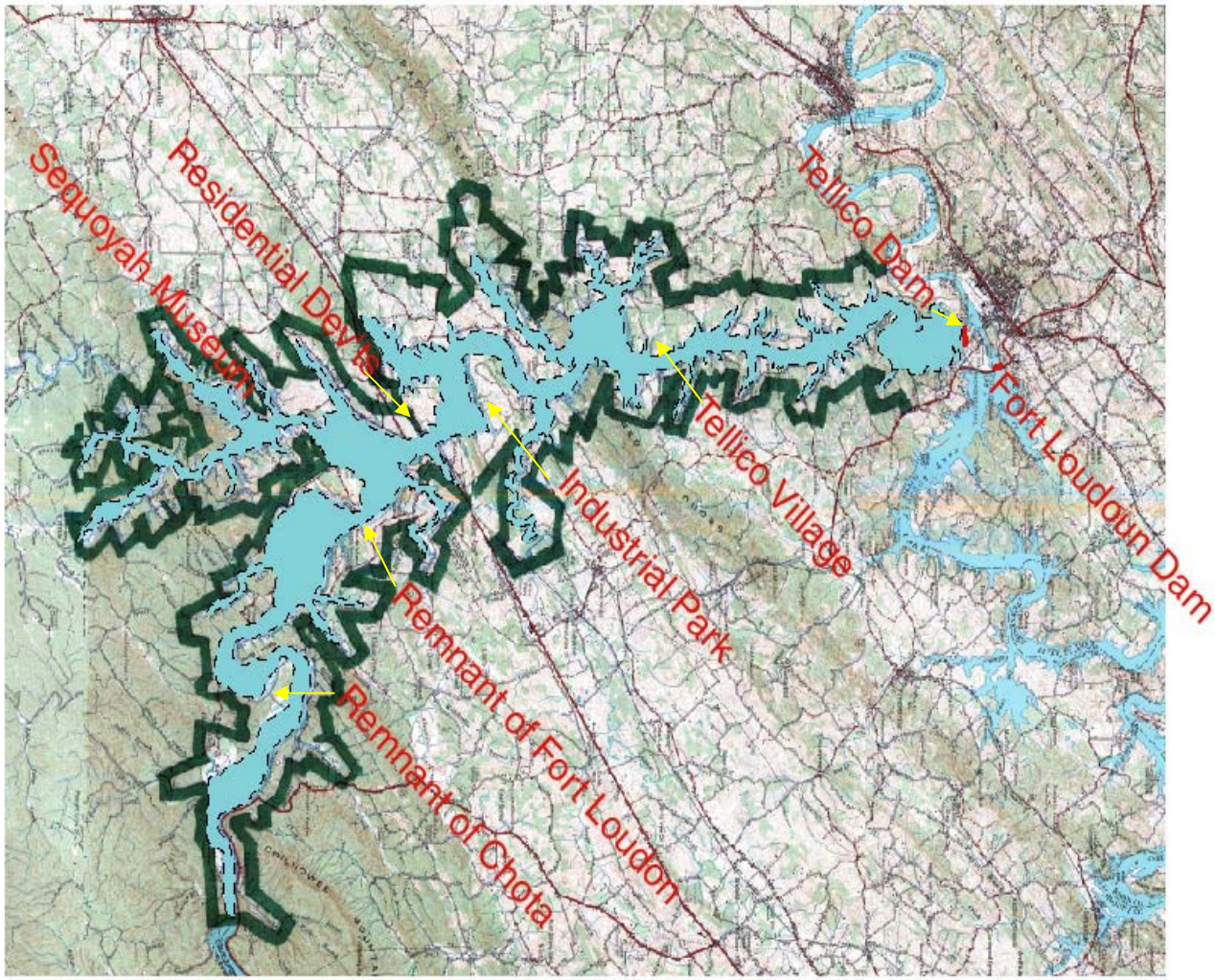
TVA Appropriations Act of 1980

Notwithstanding any provision of law to the contrary, the following projects shall be completed:

(a) Tellico Dam;. . .

Here is a schematic view of the valley as it is today — you can see that the Timberlake Model City never happened. There's a scattering of high-income homes, an industrial park near the bridge crossing, and a museum to the Cherokees near where the village of Tuskegee, Sequoyah's birthplace, now lies under mudflats. For several years, absolutely no development happened. TVA tried to urge agency employees to come and buy land in the valley to get some construction going. Nothing happened. At one point we got wind via a secret memo from the governor's office that TVA so desperately wanted some development, any development, that they were actively exploring a plan to locate a major toxic waste repository facility for the Southeastern United States in this beautiful valley. (We sent a copy of that memo to the press, which, finally, paid a little attention, and the toxics plan got stuffed. But the abject irony in TVA's even thinking of such a fallback is revealing.)

Current View



Here are images from the present. First the completed dam. To the left TVA has built a half-mile of earthen dikes to close in the valley, and the river flow goes through a small canal into Loudon Lake. Until they died out after two years, the small darters that had drifted downstream gathered aimlessly here below the dam blocked in their attempt to get back to their erstwhile spawning shoals above the dam.

Here are views of the residential areas today. Here today is TVA's proudest boast for what the Tellico project has accomplished. Ultimately the agency turned large tracts of land over to the Cooper Communities development company (from the famous White River area of Arkansas) which has built clusters of high-priced residential communities along the reservoir.


Tellico Village
Cooper Communities Inc.
REAL ESTATE CENTER
STOP

Here is an entrance into one of these clusters. (The names given to the clusters by the developer — Tellico, Echota, Toqua — are applied without regard to the places' actual historical locations.) The land that was taken from the farmers for a song, an average of $330 per acre in the early years, is being sold by TVA's development partner for $15-35,000 a quarter acre. The farmers can't get back on their land except in a service capacity.


Coyatee

These are very high-income folks. One farmer wryly said that the primary purpose of the Tellico project turns out to be taking the agricultural fields of 300+ farm families and turning them into high-priced subdivisions, with docks so rich people can motor their yachts up to Knoxville for football games.

And even admitting that this is economic development, the citizens ask why it needed a dam impoundment, and why it had to be done under a federal agency's eminent domain power. An executive of Cooper Communities once said publicly that his company would rather have done their development, has they had in Arkansas, along a the river rather than a reservoir, but TVA insisted on the dam. Whatever you see — residential development, industrial locations, recreation — could have been better done with more land available with the citizens' river-based plans, while leaving 20,000+ acres of fertile land in family farm agriculture.

You can see, the houses are splendid. You wonder if the new residents ever think of the farmers whose silos still reach up from the lake [far left] from the submerged barnyards flooded by the dam.

Another silo. It’s a very shallow lake. This farmsite is located more than 2/3 of the way down the lake, approaching the dam.

Water quality ain't so great now. Unsafe to eat the fish, the water. And the river was gorgeous — it was a clear kind of turquoise milky — and just beautiful and you stop it up and there it goes. That's the dam. Do you want to see more slides? Fran has a whole bunch if them but I think that'll do us for right now. If you can just flip that off. Some of you may want to see — she has some spectacular slides that now are history and really fantastic.


WARNING
THIS WATER IS CONTAMINATED
FISH UNSAFE FOR FOOD
CATFISH
TENN. DEPT. OF HEALTH & ENVIRONMENT

This is the industrial park — it hasn't been doing so well, but it's there. Remember that the citizens' and God Squad's river-based alternative plans provided more land for industrial parks, and we have heard that many executives from out of state would have much preferred a river with trout fishing instead of warm water carp and bass recreation… TVA tried to argue that the reservoir was needed to provide barge access to the industrial park, but logic then and experience since has made clear that the claimed utility of barges was a cynical joke. It appears that no barge has ever come into Tellico except TVA's dredge.


Tellico West
INDUSTRIAL PROPERTIES
NORTH ENTRANCE
APPROVED
FLUORIDATED

Here is a flooded area adjacent to the industrial park, showing a place where you could have had, if you needed it, another square mile of industrial sites located on the highways and railroads, if the river had not been impounded.

II.

So what can be made of all this? (What advice to the next President can I draw from this tale to earn the visit to Tennessee you so graciously have given me?)

"Don't do any more Tellico Dam projects." — That would be a start.

But more usefully, let me explore one basic observation (of the several different strands that could be harvested from this tangled story) —

I would submit humbly that the Tellico Dam is an example of a major project or program *that viewed societally made no sense. Its human, societal costs — in terms of harms caused to a geographic place that was a public treasure, the pain to the human community that lived, farmed, played, and worshipped there, the loss of the valley's extraordinary existing values and valuable assets for potential future development — far, far outweighed the project's societal benefits.* Viewed in societal overview perspective, the Tellico project was *stupendously stupid*. No academic or technical observer who has reviewed the project overall with the object of assessing its actual costs and benefits has ever found that Tellico Dam was a net positive. It was instead a wasteful artifact engineered by a small group of players with their own limited agenda.

And yet — and here is the second part of the observation — *all our elaborate systems of societal governance were unable to stop the destruction from occurring,* despite decisive laws, solidly probative facts, and fifteen years of administrative, legislative, and media procedure. The narrowly focused dynamics that created and pushed this societally-irrational project represented a dominatingly powerful promotional initiative. TVA was able to roll along, riding our society's powerful infrastructures of resistance against imposition of public controls and societal accounting. They successfully resisted all the structural mechanisms that our society has instituted in seeking to achieve rational governance. And from the beginning, one should note, in this and most similar promotional initiatives, the odds favor the narrow promoters.
So Tellico can offer a vehicle for viewing

- how stupid projects and programs are born,
- how they grow and prosper,
- and how they resist and avoid societal mechanisms for public accounting and rational oversight.

Tellico may indeed be an extreme example, a case in which virtually no one could then or now show that the project or program was not destructive and wasteful. Most environmental issues are not so clear. But this clear extreme case may unfortunately reveal basic dysfunctional systemic tendencies, flaws in the way the structures and mechanisms of our societal governance balance (or, fail to balance) conflicts between the power of such promotional initiatives and the short and long term best interest of the society.

(The systemic artifact is made even more instructive by the fact that in Tellico the public merits were overridden by a *public* governmental entity, on lands that through most years of the controversy were predominantly owned by the government, not by private individuals or corporations whose frame of reference is inherently narrower than the public interest.)

How is it that such dysfunctional projects can happen? How is it that any environmental case happens? Nature, and human nature, are what lie behind every single environmental case, from the polluting Riley Tannery in Civil Action, or the production of persistent chemical pesticides that travel for years through the air, water, soil, and our bodies, or overfishing in lakes or offshore banks, and everything in between.

As basic background: There is a wellknown construct for explaining virtually all human-caused environmental problems — the logic of the rational individual decisionmaker, seeking to maximize the "internalization" of profits (each making as much money as they can for themselves), and also seeking to maximize the "externalization" of costs (avoiding the need to pay the full costs of a venture by passing costs on to others). If you're running a paper factory and want to maximize your profits, you'll want to duck paying for anything that costs you money. If you have sludgy wastes, you incline toward simply getting a pipe and passing them into the river, into nature, into the public domain. And you're not a criminal in doing so.

Everyone shares the pull of that logic. None of us would want to be billed for the full costs that we pass on to others and to the environment. Every individual, every corporation, and, even, every governmental agency tends to make decisions only in terms of the costs and benefits to themselves.
The double result of this truism is (1) the modern marketplace economy, the most dynamic human mechanism that has ever been invented, and also (2) the systemic inclination to externalize costs, many of which become social costs, as when actors treat the environment as a free good and a dumping ground.

This construct is wellknown.

But let me try to build upon the truism. It is naïve to think of economic reality as a series of individual actors. So it is realistic to picture the result of all these individual profit-driving dynamics as a huge compound mechanism. Let's call it the "marketplace economy," and by that phrase I do not mean just the world of business, but the vast behavioral system beloved of the Chicago School, built upon the individualized daily decisions of corporate and individual actors, private and public entities The marketplace economy, a dominating system of human and governmental actions, is an immensely powerful network of networks, including agencies as well as corporations as TVA demonstrates. (It is naïve to think of any sector of the marketplace economy, for instance Energy, without thoroughly incorporating the internal dynamics of agencies like TVA, FERC, NRC, state utility board politics, and so on.) The marketplace economy is the most powerful, intimate, highly articulated, self-energizing human system ever invented (probably including religion). Its elaborate synapses for brokering motivations and payoffs has built breathtaking wealth and technological power. But for all its dynamism, the marketplace economy has a tragic flaw —that every entity in the marketplace economy basically tends to deal only with things that have some form of price tag attached, where benefits or costs are registered, and each also shares the same tragic logic of cost externalization, so that, wherever possible, they tend to externalize social costs out from the domain of the marketplace economy and into no man's land.

So pollution goes into rivers, as a function of corporate and agency dynamics in the marketplace. (I once heard an Army Corps of Engineers general who said that rivers were God's way of providing for garbage disposal.) A fabulous river and its valley are officially regarded as cheap and handy materials for a make-work porkbarrel project to keep an agency busy.

THE THREE ECONOMIES

But the costs that are not accounted for in the marketplace economy do in fact go somewhere. Where do they go?

If you are going to conceptualize "Economics" as a major part of a society's selfgovernance, it makes sense — in addition to the dynamic, interconnected mechanisms of the Marketplace Economy — also to posit and picture an "Economy of Nature" to show where resources come from and where many of the market's ejected costs go. [See J.L.Sax, Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council, 45 Stanford Law Rev. 1433 (1993)] The economy of nature exists. It is likewise a complex system of systems, even more intricately connected and complex than the marketplace economy in the way it processes the elements and forces within and imposed upon it, and brokers the reverberations through its cycles of water, carbon, energy, and ecosystem functions. The marketplace economy takes resources from the economy of nature, and sends back to it pollution, resource derogation, and disrupted ecosystem dynamics. But this is how it has always been with us entrepreneurial human beings who have built this amazing modern technological world. [See D. Muir, Reflections in Bullough's Pond] It's just that there are now more of us, with more power to cause consequences than ever before.

If you want to talk about real economics you can't just talk about marketplace economics, because to do so systematically excludes important real benefits and costs. As to benefits, note the "natural capital" literature that has begun appearing over the past ten years. [See Costanza, et al., The Value of the World's Ecosystem Services and Natural Capital, NATURE, May 1997] As to costs that flow back into the economy of nature from the marketplace, these are often critically significant. Pesticides shutting down bacterial soil-building, Ecological disruptions from human-caused climate change. Loss of forests, wetlands, prairie. The costs impacted into the economy of nature do not just disappear out of sight out of mind. Nature is not a sink. A river that isn't there anymore isn't there anymore.

THE THREE ECONOMIES

But this construct of the "economy of nature" needs more, in part because it does not capture the full range of social costs externalized by the marketplace, and in part because when you talk to politicians or others deeply entrenched in the blandishments of the marketplace economy, they are likely to regard this "economy of nature" as an intangible insubstantial academic figure of speech that doesn't impinge on the daily economic and political realities of the marketplace economy. If you talk about the "natural economy" you sound like one of those tree-huggers.

So we need to picture another concurrent economy, likewise incorporating elements ignored by the marketplace economy but representing a more direct human utilitarian self-interest — what I unpoetically call the "civic-societal economy." Externalized costs that are passed out of the marketplace into nature often simultaneously or subsequently pass on into the interconnected networks of a human societal economy as well. This is clear with industrial pollution, some of which goes directly into humans' bodies — as when workers absorb solvents into their blood while working in a factory. A host of other human social costs unaccounted by the marketplace occur when those solvents are dumped in a river killing or altering a hundred kinds of plant and animal life forms, cutting back on fishing harvests and recreation, lowering property values, changing human qualities of life in terms of aesthetics, health, and collateral economics.

Thus, if you are an economist purporting to tell the nation how it should make production and governance decisions, you are naïve or crooked if you don't consider costs and benefits within all three economies. You cannot realistically decide how to produce and apply a chemical without looking at the consequences in all three economies. You cannot rationally propose to clearcut a federal subalpine forest, or mine a mountain, or build a dam, or pass a fast-track agreement making global trade king without looking at the consequences in all three economies.

Theoretically, of course, our legal system kind of recognizes this. We pass statutes and create regulatory systems to correct market failures. Here on the perimeter between the marketplace economy and the surrounding civic-societal economy, you could pinpoint a whole bunch of societally protective statutes and regulatory agencies, including many in the environmental field. "Thou shalt not throw carcinogenic chemicals into the natural environment. Thou shalt not destroy forests unless you plant trees…." There are so many do-goody "thou shalt nots" that it's hard to remember that most of them don't work very well at all. Look at the sad real-world record of federal regulation of mining, logging, overgrazing, overfishing, chemical chlorinated hydrocarbons in our foodchains,… look at how the Little T river valley was erased by the Tellico Dam.

And so to be accurate and rational we must also describe and confront the comprehensive reality of marketplace Resistance to civic-societal constraints. How could you graph this within the picture of the Three Economies? You start with schematic representation of all those statutes around the perimeter of the marketplace economy, many or most of them designed to protect society against identified excesses of market failure. Then go into the marketplace economy, and note that virtually all the major players within the marketplace economy are interlinked and intercommunicating in their own networks of lobbies, trade organizations, and other coalitions designed to promote and protect the selfinterest of their industries. And what, besides increased profits, is the primary target of these linked networks? I'd say the primary target was government, sometimes in terms of obtaining direct and indirect government subsidies, but even more consistently in resisting and minimizing government regulatory constraints on their sectors.

(Of course, the marketplace economy sometimes embraces government regulation. The regulatory framework for airlines, broadcasting, power, and a host of other fields, at least prior to de-regulation, was the accepted [anticompetitive] foundation upon which the marketplace economy built those enterprises. By the 1980s the framework of federal pollution laws had generally become accepted by the marketplace, shaping internal industry planning and giving rise to the small but vital secondary sector of pollution control business. The era of the Contract with America Congress in 1994, however, showed how the inherent instinct of the marketplace remained. When industry was able to capture the House of Representatives, its Project Relief

tried to overturn a broad swath of protective environmental and social welfare laws. Human nature had not been repealed.)

Resistance. From the Tellico case you can identify a spectrum of different processes by which the marketplace resists the imposition of civic-societal norms (only some of which we have time to discuss).

- To illustrate one such process of resistance, you need to draw some triangles: Iron Triangles. Some of you in politics know the concept of the iron triangle. It describes how, once a statute is passed by Congress, the marketplace tends forge a powerful linkage between the industry, the agency that was set up to administer the statute, and members of Congress whose interests are directly implicated. In nuclear regulation, for instance, an iron triangle forms between the nuclear industry, the Nuclear Regulatory Commission, and various congressional committees and legislators who have major nuclear industries in their home districts or in their fundraising plans. Likewise with regulation of chemicals, pharmaceuticals, logging, mining, food and drugs, etc. Think of mining. You can relax because the Department of Interior's Bureau of Land Management is going to protect our mountains and rivers from being destroyed by mining companies, right? And Congress will back the protective effort? Think about our forests. Despite pressure from the clearcutting timber companies, the Forest Service will assure that the public forests will provide sustainable yields forever, and powerful senators like Slade Gorton will see to it that their states' natural legacies survive, right?

In the public works setting like Tellico, the iron triangle forms between the federal pork barrel project agencies like the Corps or TVA, the local construction and real estate industries, and the members of Congress who gain power and votes by bringing infusions of federal taxpayer dollars into their local districts. The triangle is geometry's strongest form. Once a project, policy, or program gathers momentum within an iron triangle, it is extremely hard to derail. The people who will build or market the initiative anticipate direct profits, the agency will harvest political capital from going along or lose power and momentum if they allow themselves to be constrained by public interest norms, the tied-in legislators will profit politically and in fundraising if the triangle gets its way. The agency that wants to build the dam is also the one that is being told by Congress to obey other laws that get in the way of dams, like the Endangered Species Act and a host of others. Which dynamic prevails?

The iron triangle has become a standard poli-sci concept. But it's not just one iron triangle. It turns out that everything in the marketplace economy that is worth fighting over has an iron triangle. For chemicals. For foods. For mining. For ranching….

THE THREE ECONOMIES

The result is that many laws are poorly enforced. Laws that are passed in a burst of legislative energy, aimed at controlling the excesses of some industry or agency-industry bloc, immediately begin to be resisted and subverted by the very forces they were put in place to control. Agencies that set out to implement their statutory missions find themselves seduced by marketplace politics into iron triangles, or blocked by iron triangles anchored by sister agencies. Once we had a Department of Interior regional administrator floating down the Little T to survey the situation, but before he had gone a mile, TVA obtained an administrative order yanking him off the river. Another time an Interior solicitor said to me "Could you please threaten to file another lawsuit and then I can go to my boss and tell him we'll have to do what we're supposed to do in the first place?" In the face of strong economic and political coalitions in the marketplace economy, agencies cannot or will not readily implement the counter-marketplace jobs they were set there to do.

Resistance to the implementation of societal norms, it appears, can become as much a part of the human nature of agencies as it is of corporations. Political scientists call it the "capture phenomenon." If you rely on a "bi-polar" system of societal governance — the paradigm from the time of the Populists or Teddy Roosevelt, with, on one side, official government trust-busting and reform agencies set up to protect the public interest, and on the other the regulated marketplace interests — over time in practice the counter-balance does not consistently work very well. Pretty soon the latter are going to reel in the former. Market power attracts nonmarket power to itself. The watchmen are drawn close to the watchees, and you find yourself with "Establishments" determining the daily course of social governance. In the case of agency dambuilding, the porkbarrel Establishment was vividly tangible and determinative.

The tendency to resist societal limitations on the marketplace plays out transparently in the porkbarrel appropriations process. Appropriations committees serve as powerful scalpels, each and every year reviewing almost all relevant agency programs, deciding how much money to give or withhold from the agencies, and these porkbarrel committees traditionally give a friendly platform to marketplace players and their legislators making arguments to cut back on "overzealous" environmental enforcement. The Appropriations committees' agendas and power are well known. At the end of the Tellico saga, when Jimmy Carter was suborned not to veto the appropriations rider that killed the river, he called us and was almost crying as he begged our understanding: "I had to go along with it because the chairman of the appropriations subcommittee was insisting on it."

- Resistance to regulation drives the "Devolution" movement in our national political debates, shifting government back to the states. The divide-and-conquer, race-to-the-bottom strategy holds that if an area of regulation is vested at the state level, instead of the federal, economic competition between the states will result in dilution of the overall regulatory burden. In pollution control, and even to a degree in endangered species regulation, this has led to marketplace efforts to substitute state controls for federal, rolling back the scope of federal authority. This strategy has its political adherents on the Supreme Court. The Confederate battle flag was taken down from the Capitol building in Columbia South Carolina, but it has been moved, apparently, to Washington DC where it now flies over the Supreme Court building.

• Systemic laissez-faire initiatives can also be tracked within the "Takings Project," the expanding campaign of the "privateers" over the last twenty years to fortify private property rights at the expense of civic public protections. [See Doug Kendall & Charles Lord, The Takings Project: A Critical Analysis and Assessment of the Progress So Far, 25 B.C. Envtl. Aff. L. Rev. 509 (1998)] If the courts increasingly require government to pay when regulations lower market values and profits, then regulations will be subsumed into the logic of the marketplace, which misses the point of government, imposing restraints that are required by market deficits, in the first place. Endangered species law has been no exception. Tellico awakened a firestorm of privateering counter-attacks for its revelation that endangered species law could force reconsideration of development projects' merits at the intersection of nature and the marketplace. As Rush Limbaugh said, "America today is a new homosocialism, communism. What these people are is against private property rights. They are trying to attack capitalism and corporate America in the form of going after timber companies. And they're trying to say that we must preserve these virgin trees because the spotted owl and the rat kangaroo and whatever live in them, and it's the only place they can live, the snail darter and whatever it is. [Rush Limbaugh, The Rush Limbaugh Show, Dec. 7, 1993.]"

• And the Media question. There isn't time to explore here what may have been *the* determinative systemic phenomenon, that the press from the beginning was captured by the classically misleading syllogism — You have to choose, Economic Progress or Environmental Quality? You cannot have both. What do you want, Little Fish or Big Electric Generating Dam? For better or worse, the internal dynamics and economics of the media are part of the fabric of American democratic governance, and here too Tellico has piquant lessons to teach.

In sum, a reminder. TVA is not evil. The Business Roundtable, the Pacific Legal Foundation, the Wise Use privateers, are not evil when they try to undercut public interest environmental laws. They are just implementing their human nature as marketplace players, serving their cohort's own internal selfinterest, perhaps wistfully hoping that no one will have to worry about the consequences. The problem is this — the First Law of Ecology ells us that everything is connected to everything else, and therefore everything has consequences that, especially the dismal ones that you don't want to think about, are real. And unless you look out, in all three economies, for the real consequences of the actions, projects, and programs you launch, you are ultimately not going to make societally rational decisions.


TVA
The power of the public good.

III.

And finally let me pitch a final proposition in thumbnail sketch form — that the effective governance of complex modern systems of production, trade, and public interest *requires that citizens have the power and practical ability to enforce public laws* if those civic regulations are not to be lost in the intricate political and economic entanglements of the marketplace.

If we are not to lose our natural world to destructive depredations,

we must have systems that are not delimited by the official agencies and corporate players to whom we have entrusted the most dominant roles in the daily life of our society.

Remember that old construct of a bi-polar system, the Establishment, where we the people and nature with its snail darters were to be cared for by the stewardship of official government agencies charged with counterbalancing the dynamics of the market economy? Instead of a bipolar system, we have learned since the 1960s that we need a multi-polar, multi-centric, more Jeffersonian democracy. The snail darter was a multicentric prophet: The only hope for a rational policy resolution came at the point of a citizen injunction. We didn't feel like a powerhouse, but with that citizen suit provision in the ESA we were more powerful than the Department of Interior, and almost strong enough to push TVA into a rational revision of its destructive onrolling obsession.

How would you feel if citizens in America today lost their ability to intervene and enforce public interest laws? Would you feel safe if the nuclear industry and the NRC knew all they had to worry about was Congress?

My guess is that there are only two mechanisms that systemically are going to break through iron triangles, bringing the real merits of projects and programs into a public forum where the marketplace's congressional, industrial, and agency players must take account. One is the media and that's an inquiry for another time. (For seven years we talked to more than 120 reporters

about Tellico, some of them more than 20 times, and we never got a story that revealed the common sense alternative options for river-based development consistent with saving the endangered species.)

The other, far more readily implemented, is citizen litigation. Citizen litigation isn't a panacea. But without it we're in big trouble. It is really important societally that practical legal mechanisms can get us beyond "might makes right." Judges must be open to allowing unofficial outsiders with no political capital or position to plunk down 25 bucks and say 'I believe there's a violation of statute going on here, and you have to look at it before this project or program goes on.' The marketplace judges, the Meese-Sununu judges that increasingly dominate our courts, have been devastating to this American active citizen enforcement. The recent *Laidlaw* case is one of the few recent reconsolidations of the importance of citizen participation in enforcing public interest laws. The next president must assure that it will always be possible for a little group of citizens, a little canary, or a little fish, to say 'Wait, this emperor is wearing no clothes.'

The End

[Picture of Citizen Law Enforcers, 22 years later. Clockwise from left: Hank Hill; Peter Alliman; Doris Gove; Jeff Mellor; Dave Etnier; ZBP]


SAVE THE
SNAIL DARTER
SAVE THE
SNAIL DARTER

MODERATOR...
PROFESSOR MIKE FITZGERALD [UT Dept. of Political Science]:
What I want to do in my remarks is build off Zyg, and talk about the lessons and bring them into maybe in a little different focus.
We have here tonight a number of people Zyg referred to in his narrative: Don Byerley, Otis Stevens, David Etnier, David Scates, Peter Alliman, Ginna Mashburn, Dean Rivkin, Fran Scheidt, Julie Hardin, Steve Rechichar, Hank Hill, ... and there were so many others, some of whom have passed away, some of whom could not make it here tonight. Tonight is a little painful for us who studied or worked in some way or another on this case. Average citizens here gave years of their lives to the effort, trying to raise public arguments, raising nickels and dimes, taking on the Tennessee Valley Authority, in a way that made not just case law precedent but made the possibility of citizen enforcement suits real.
The people that I interviewed and talked to in studying all the complexities of the Tellico history build a richly revealing story that Zyg called "Reflected in a River".... (I've always loved that metaphor, Zyg,... all that one could see in the historic river as it was, and then also see what is reflected in the dead river that resulted; the metaphor works too with the notion of the Tennessee Valley Authority and what has it become, so that I might call it "Reflected in an agency.")

Zyg makes an important point about the addition of citizen suit enforcement provisions to laws, when Congress passes statutes like for example the Endangered Species Act. Passing innovative public interest legislation is not such an easy thing to do. Congress is motivated to pass such laws under the pressure of the political moment, when the sun and the moon come into alignment and the president is willing to sign. The legislators who agreed to add these provisions into the ESA did not really realize what the law could do in this country in the hands of determined and skilled attorneys on behalf of citizens with passion and commitment to public good in the face of a lot pressure for them to remain silent. It's enough to make me proud of all these political science majors that are coming through my classes on their way to law school. There may be something to be said for the legal profession after all. In fact, there's a lot of good to be said about attorneys, including our University of Tennessee law school with the kind of professors and students that we have had.

But to go back and revisit this hurts, doesn't it? Because I don't think any of us were ever quite the same afterwards in how we looked at our government, and certainly how we saw the Tennessee Valley Authority. Because most of us who were involved in working on this case, and me in studying it, expected more out of the Tennessee Valley Authority, as an example of what an enlightened public agency, not tied to the same old kind of partisan politics and political considerations, could do. We believed the myth, the shining myth, the New Deal myth of the Tennessee Valley Authority and what it meant in this country. And we believed something else about the Tennessee Valley Authority. If you go to some of these dams you'll see a rather unique

plaque on them. What it says is “For the people of the United States.” I would like to remind some of our current congressional delegation of this. What TVA was supposed to be isn’t just for the people of the Tennessee Valley, it is for the people of the United States.

Many of you who know the history of the Tennessee Valley Authority, as it has been expressed by the high priests of American civic religion, our presidents on certain occasions, know that TVA was supposed to stand as a yardstick, as a sterling example of what public service could be with an idealistic, empowered public agency. It is a worldwide example of what government could be.

It may very well be that Jimmy Carter was on the verge of tears when he signed the bill that killed the river, but I don’t think that can begin to convey the tears in the hearts of the people who knew the river. Anyone who understands the way politics works knows how a president can uphold a veto. A show of strength on principle and on the factual record would have cost Jimmy Carter little or nothing. Maybe he thought he needed to give them the dam to get approval of the Panama Canal Treaty, which has basically gone south on us in a variety of ways anyway. Maybe it was just near term thinking. And it certainly didn’t earn him a thing in terms of re-election.

What happened here in the Tellico case was tragic in terms of the old guard of the TVA, a great agency misled by its own history. The late Red Wagner personified this, a man for whose career I have tremendous respect in terms of what that man did and the kind of public servant he was. But in tragedy, good intentions are not enough.
This was a tragedy. You cannot study the Tellico Dam case from any perspective and not come to the conclusion that what happened was wrong. Especially from the position of a conservative or neo-conservative looking at the next presidential election, if they value the rule of law. The rule of law means government agencies as well as citizens living by the law and respecting the spirit as well as the letter of the law, rather than raw power and institutional desire. From a conservative position, one is supposed to hold public agencies to be responsible and limited and subject to control by the citizens that they are created to serve. They should not resist the application of an accurate and responsible, methodologically-legitimate cost-benefit analysis, which Zyg has already shown was not there for Tellico. Economic cost-benefits built into the equation, along with social and environmental benefits. That is not a radical and it's not a "liberal" position. It's conservatism rightly understood. Yet it was the "conservatives" who overrode the environmental laws to back TVA's obsession to build the dam. This is a lesson to the next president in terms of not worrying so much about labels and focusing more on the facts of a case, and on what is right.

So, Mr. President, I think Zyg Plater and Mike Fitzgerald would say to you: First, beware of myth vs. reality. For our Chief Executive, the head that wears the American crown, the high priest of our civic religion, it is well to bear in mind, looking at the Tellico case, that there is a difference between image and performance. It is very dangerous to the public good, to children and other living things, when officials and public agencies allow the gap between their self-image, their projected image, and their actual performance to widen too much.

A second lesson it seems to me that emerges from the body of Zyg's work and his practice, and that of other people in this room who tried very hard at great costs to the heart and to careers. It's that public service remains a public trust. The thing that is so heartbreaking is that early in the Tellico case and throughout this case, citizens, the kinds of citizens to which a public agency with any kind of wisdom would respond with at least dialogue, were literally blacked-out of any kind of participation in any kind of deliberative process. At the same time, this agency continued in its own mind and in the press to consider itself operating for the people of the United States, as if the citizens in this valley had no legitimate role to play. The failure of the Tennessee Valley Authority teaches a very valuable lesson of what happens when we fail to understand that the public trust, the public service is something that citizens in this country have a right — indeed they have an obligation to conceive and re-conceive.

The third lesson it seems to me as we think about Zyg's presentation, is the danger that this society faces at those extended moments of institutional and generational transitions. There's real reason to believe — if you check the age structure of the federal government and certain of the major federal agencies — that we are on the front end of what will be a major institutional generational transition in this country. I think this next president's going to face it. How one superintends, as Chief Executive, the transition from the old guard to the new, will shape our present and our future. What I have in mind there is whatever problems we had, and they were monumental, in the 1970s, in opening up the old guard of the TVA and trying to return them to their more idealistic youth, pales in comparison to the institutional transition we may be facing now. The Tennessee Valley Authority certainly is starting to appear like a dumping grounds for partisan employment. Even the Clinton-Gore administration that is supposed to be sensitive to the kinds of concerns that are raised in the Tellico dam case continues to provide examples of how great federal agencies lose their large scale public purpose in return for short term power and bureaucratic jobs.

And finally I would urge the next president to beware of cozy triangles. The problem with the iron triangle these days isn't that it's iron. It may be titanium, or even tougher, lighter, more difficult to perceive, let alone move, than titanium. But also that it is so cozy. What I mean by that is, with the way we are moving people in and out of federal agencies, between staff on the Hill, between lobbying groups, between presidential campaigns on both sides of the aisle….

The key isn't so much that it's such a strong triangular relationship here. It is how comfortable and comforting it is to those residing within it. Especially in the era of the spinmeister, the image-master who is always weaving the images and the symbols in a way that distracts us from the reality of performance.

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DO ANY QUESTIONS COME TO MIND?
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